Darrell J. Penta, Ph.D.



Behavioral Scientist • Communications Consultant

Summary of Skills

- Designing and conducting empirical studies to answer complex questions: Quantitative experiments with human-subjects, surveys, fieldwork, ethnographic interviews, corpusbased research.
- Analyzing data to make inferences about causal and predictive relationships between variables: Linear and non-linear regressions, multivariate mixed-effect models, statistical testing (ANOVA, T-tests, correlations), descriptive summaries, and data visualizations.
- Devising strategies for improving user/consumer experiences with web-based services and digital devices:
 - Qualitative assessments of functionality, features, and interface designs. Iteratively soliciting and incorporating stakeholders' feedback. Translating desired outcomes into discrete objectives for developers. Identifying and researching issues related to usability and access.
- Communicating effectively to diverse audiences:

 Explaining research findings to scientists and non-scientists. Creating engaging narratives, compelling multimedia presentations, and thoughtful print- and digital-media content.
- Improving workflow processes, collaborating with cross-functional teams, managing small groups, and meeting deadlines in fast-paced, high-pressure settings.

Experience

Independent Consultancy Jun. 2009 – Present

User Experience Research

• <u>E la Carte, Inc.</u> Collected qualitative data about restaurant patrons' and employees' experiences with early prototypes of a tabletop ordering/payment terminal for the industry's leading pay-at-table systems provider. Conducted on-site observations and interviews. Organized and led 3 focus group sessions with management and staff at a busy branch of a national restaurant chain in Harvard Square (Cambridge, MA). Summarized key findings in written and oral presentations for the founder/CEO. Provided the lead software engineer with detailed descriptions of technical issues (as personally observed or as reported by users) and assisted in troubleshooting.

UX Usability/Accessibility

- <u>EnglishCentral.com</u> Used evidence from published studies of second language acquisition to identify and evaluate the pedagogical potential of a proprietary voice-recognition technology for a web-based language-learning service. Proposed several end-user features, and worked with a small team of designers and engineers to assess strategies for implementing and incorporating selected features.
- <u>National Consortium of Interpreter Education Centers</u> Collaborated with a project manager to anticipate and resolve potential barriers-to-access for a digital repository of educational materials for D/deaf leaners and educators. Developed protocols and best-practices for tagging and annotating data submitted by international scholars of sign language interpreting studies.

UX Project Lead

<u>Department of Psychology, Northeastern University</u> Proposed and guided the creation of the Department's
internal SharePoint website (start-to-finish). Researched users' preferences for the site's functional
requirements via surveys and interviews, and integrated/reconciled these with Department's preferences.
Outlined objectives for front-end and back-end developers at various stages throughout the development
of the site.

Communications/Marketing

- <u>Pencilvent</u> Routinely advise Kuwait's second-largest branding and marketing firm on the development of slogans, advertising copy, and web- and print-media content for their clients.
- <u>Dr. Paul W. Fombelle, Marketing Consultant/Professor of Marketing Provided research assistance on a rebranding/marketing campaign for a growing, Boston-based contracting firm. Designed and created the firm's logo. Analyzed website visitor metrics, summarized and reported findings to the firm's executive staff for one quarter.</u>

Research Assistant & Coordinator

Sep. 2012 – Aug. 2017 Northeastern University, Boston

Pearlmutter Sentence Processing Lab

- Investigated human language processing by generating research questions, formulating testable hypotheses, identifying experimental paradigms, and producing testing materials.
- Prepared data for analyses by cleaning, normalizing, transforming, weighting, and aggregating.
- Fit models to data, conducted statistical tests, and drew inferences with respect to research questions.
- Created data summaries and visualizations, and articulated the significance of findings in manuscripts, lectures, poster talks, and grant applications.
- Trained and managed teams of 3-6 researchers.
- Met critical deadlines by prioritizing objectives for concurrently running research projects.
- Improved efficiency of the lab's data processing procedures by creating R packages and AppleScript routines.
- Wrote clear, comprehensive instructional and training materials for research participants and assistants, and wrote procedural/reference documents for lab staff.

Adjunct Professor Sep. 2010 – Aug. 2012

College of Professional Studies, Northeastern University

- Taught spoken and written communication skills in business and technology courses to 270+ international students enrolled in graduate- and undergraduate-level degree programs.
- Created syllabi, course content, and performance assessment materials. Evaluated, tracked, and reported student performance. Managed classes of 10—30 students.
- Consistently exceeded the college's average teacher/course-satisfaction scores on student evaluations.
- Inspired students to creatively apply learned concepts; for example, small teams developed and pitched ideas for digital products to a group of potential investors (Focus on Science & Technology), or prepared for and interviewed a nationally syndicated AP race/ethnicity writer (Culture & Communication Skills).

Technologies

Data Analysis & Data management: R/RStudio, Excel, Matlab, Python, SPSS, Git/Github

Visualizations & Presentation: R, Adobe Creative Suite (incl. Illustrator, Photoshop, Dreamweaver), LaTeX

Survey Applications: MechanicalTurk, SurveyMonkey, Qualtrics

Web, Database, Scripting: CSS/SCSS, HTML, regular expressions, basic MySQL, JavaScript, AppleScript

iWork & MS Office: Numbers, Pages, Keynote, Excel, Word, PowerPoint

Education

PhD Psychology (Language/Cognition) Northeastern University

MS Psychology Northeastern University

MA Applied Linguistics University of Massachusetts Boston

BA English; Psychology—Sociology University of Massachusetts Boston