

# VIOLET AURORA BROWN

Carleton College | Psychology Department

Northfield, MN

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violetabrown.com

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## ACADEMIC POSITIONS AND EDUCATION

### **Visiting Assistant Professor & Research Scientist in Psychology (2024–present)**

*Carleton College (Northfield, MN)*

### **Postdoctoral Fellow in Psychology (2023–2024)**

*Carleton College (Northfield, MN)*

### **Ph.D. in Psychological & Brain Sciences (2023)**

*Washington University in St. Louis (St. Louis, MO)*

Division of Brain, Behavior, and Cognition

Advisor: Kristin J. Van Engen, Ph.D.

### **M.A. in Psychological & Brain Sciences (2020)**

*Washington University in St. Louis (St. Louis, MO)*

### **B.A. in Psychology, Magna Cum Laude (2017)**

*Carleton College (Northfield, MN)*

Concentration in Neuroscience

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## COURSES TAUGHT

### – Carleton College:

- Instructor of record:
  - **PSYC200** Measurement & Data Analysis in Psychology, *W25, F25, S26*
  - **PSYC201** Lab for Measurement & Data Analysis in Psychology, *W25, F25, S26*
  - **PSYC220** Sensation and Perception, *S24, W26*
  - **PSYC110** Principles of Psychology, *F24, W26*
  - **Principal Investigator**/Undergraduate Research Mentor, *Su25, W26*
- Guest lectures:
  - **PSYC110** Principles of Psychology, “*Sensation & Perception*”
    - *F23 (three sections), S25*

### – Washington University in St. Louis:

- Instructor of record:
  - **U09.Psych.100.31** Introduction to Psychology, *Su22*
  - **Psych.100B.41** Introduction to Psychology, *Su21*
- Assistant Instructor:
  - **Psych.5012.01** Selected Topics in Design and Statistics, *F22*
  - **Psych.5068.01** Hierarchical Linear Modeling, *S22*
  - **Psych.5067.01** Quantitative Methods II, *S21*
  - **Ling.258.01** Methods in Linguistic Research, *F20*
- Guest lectures:
  - **Ling.478** Topics in Linguistics, *F21*
  - **U74.ci.145.51** Thinking Like a Psychological Scientist, *Su21*

## WORKSHOP LEADERSHIP & TUTORING EXPERIENCE

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- **Private Tutoring in Graduate Statistics, 2022–2023**
  - o Selected by the Department of Psychological & Brain Sciences Director of Graduate Studies to tutor three students in the second-level required graduate statistics course
- **Graduate Student Brown Bag Series R Workshop Leader, F20–S23**
  - o *Washington University in St. Louis*
  - o Led hands-on workshops for graduate students on data cleaning, visualization, and reproducible workflows in R
- **R Workshop Series for Incoming Graduate Students, Co-Leader, Su20–Su22**
  - o *Washington University in St. Louis*
- **R Workshop Series for Undergraduates, Co-Leader, Su20–Su22**
  - o *Washington University in St. Louis*

## FELLOWSHIPS AND FUNDING

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- **National Science Foundation Graduate Research Fellowship, F19–F22: \$132,000**
- **National Institutes of Health T32 Aging and Development Trainee, F22–Su23: \$26,352**
- **2022 American Psychological Foundation (APF)/COGDOP Graduate Research Scholarship: \$2,000**
- **Departmental Dissertation Research Grant, F22: \$1,000**
- **Psychological & Brain Sciences Graduate Student Research Grant, F18: \$750**
- **Psychological & Brain Sciences Graduate Student Research Grant, Su19: \$595**

## PUBLICATIONS (\* indicates undergraduate collaborators while in a teaching position)

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- **Brown, V. A.** (2025). Measuring the Dual-Task Costs of Audiovisual Speech Processing Across Levels of Background Noise. *The Journal of Experimental Psychology: General*. doi: 10.1037/xge0001826
- **Brown, V. A.**, \*Holloway, A., \*Touré, A., \*Ali, S., \*Alvarez, A., \*Nyamao, T., \*Lin, Y., \*Hrebeniuk, O., & Strand, J. F. (*in press*). The Dual-Task Costs of Audiovisual Benefit: Effects of Noise and “Native” Speaker Status. *Attention, Perception, & Psychophysics*.
- Wennberg, J., Dillman-Hasso, N. H., **Brown, V. A.**, & Strand, J. F. (*in press*). Impaired Performance in Noise: Disentangling Listening Effort from the Irrelevant Speech Effect. *Collabra: Psychology*.
- Strand, J. F., **Brown, V. A.**, \*Sewell, K., \*Lin, Y., \*Lefkowitz, E., & \*Saksena, C. (2024). Assessing the Effects of “Native Speaker” Status on Classic Findings in Speech Research. *The Journal of Experimental Psychology: General*. doi: 10.1037/xge0001640
- **Brown, V. A.**, \*Sewell, K., \*Villanueva, J., & Strand, J. F. (2024). Noisy Speech Impairs Retention of Previously Heard Information Only at Short Time Scales. *Memory & Cognition*. doi: 10.3758/s13421-024-01583-y
- Sewell, K., **Brown, V. A.**, Farwell, G., Zhang, X., Rogers, & Strand, J. F. (2023). The Effects of Temporal Cues, Point-Light Displays, and Natural Faces on Speech Identification and Listening Effort. *PLOS One*. doi: 10.1371/journal.pone.0290826
- **Brown, V. A.**, & Strand, J. F. (2023). Preregistration: Practical Considerations for Speech, Language, and Hearing Research. *Journal of Speech, Language, & Hearing Research*. doi: 10.1044/2022\_JSLHR-22-00317

- Strand, J. F., & **Brown, V. A.** (2023). Spread the Word: Enhancing Replicability of Speech Research Through Stimulus Sharing. *Journal of Speech, Language, & Hearing Research*. doi: 10.1044\_2022\_JSLHR-22-00267
- Wilbiks, J., Strand, J. F., & **Brown, V. A.** (2022). Speech and Non-Speech Measures of Audiovisual Integration are not Correlated. *Attention, Perception, & Psychophysics*. doi: 10.3758/s13414-022-02517-z
- **Brown, V. A.**, Dillman-Hasso, N. H., Li, Z., Ray, L., Mamantov, E., Van Engen, K. J., & Strand, J. F. (2022). Lipreading in Noise: Cross-Modal Analysis of the Target-Masker Linguistic Similarity Hypothesis. *Attention, Perception, & Psychophysics*. doi: 10.3758/s13414-022-02486-3
- McLaughlin, D. J., **Brown, V. A.**, Carraturo, S., & Van Engen, K. J. (2021). Revisiting the Relationship Between Implicit Racial Bias and Audiovisual Benefit for Nonnative-Accented Speech. *Attention, Perception, & Psychophysics*. doi: 10.3758/s13414-021-02423-w
- **Brown, V. A.**, Van Engen, K. J., & Peelle, J. E. (2021). Face Mask Type Affects Audiovisual Speech Intelligibility and Subjective Listening Effort in Young and Older Adults. *Cognitive Research: Principles & Implications*, 6(49). doi: 10.1186/s41235-021-00314-0
- **Brown, V. A.** (2021). An Introduction to Mixed Effects Modeling in R. *Advances in Methods and Practices in Psychological Science*. doi: 10.1177/2515245920960351
- **Brown, V. A.**, Fox, N. P., & Strand, J. F. (2021). “Where are the...Fixations?”: Grammatical Number Cues Guide Anticipatory Fixations to Upcoming Referents and Reduce Lexical Competition. In press at *Journal of Experimental Psychology: Learning, Memory, & Cognition*
- Strand, J. F., Ray, L., Dillman-Hasso, N. H., Villanueva, J., **Brown, V. A.** (2021). Understanding Speech Amid the Jingle and Jangle: Recommendations for Improving Measurement Practices in Listening Effort Research. *Auditory Perception & Cognition*. doi: 10.1080/25742442.2021.1903293
- Guang C., Lefkowitz, E., Dillman-Hasso, N., **Brown, V. A.**, & Strand, J. F. (2021). Recall of Speech is Impaired by Subsequent Masking Noise: A Replication of Rabbitt (1968) Experiment 2. *Auditory Perception & Cognition*. doi: 10.1080/25742442.2021.1896908
- **Brown, V. A.**, McLaughlin, D. J., Strand, J. F., & Van Engen, K. J. (2020). Adaptation to Fully Intelligible Nonnative-Accented Speech Reduces Listening Effort. *Quarterly Journal of Experimental Psychology*.
- Strand, J. F., **Brown, V. A.**, & Barbour, D. L. (2020). Talking points: A Modulating Circle Increases Listening Effort Without Improving Speech Recognition in Young Adults. *Psychonomic Bulletin & Review*.
- **Brown, V. A.**, & Strand, J. F. (2019). About Face: Seeing the Talker Improves Spoken Word Recognition but Increases Listening Effort. *The Journal of Cognition*, 2, 44. doi: 10.5334/joc.89
- **Brown, V. A.**, & Strand, J. F. (2019). “Paying” Attention to Audiovisual Speech: Do Incongruent Stimuli Incur Greater Costs? Registered Report at *Attention, Perception, & Psychophysics*, 81, 1743–1756. doi: 10.3758/s13414-019-01772-x
- Strand, J. F., & **Brown, V. A.** (2019). Publishing Open, Reproducible Research With Undergraduates. *Frontiers in Psychology: Educational Psychology*, 10. doi: 10.3389/fpsyg.2019.00564
- **Brown, V. A.**, Hedayati, M., Zanger, A., Mayn, S., Ray, L., Dillman-Hasso, N., & Strand, J. F. (2018). What Accounts for Individual Variability in Susceptibility to the McGurk Effect? *PLOS One*, 13. doi: 10.1371/journal.pone.0207160
- **Brown, V. A.**, & Strand, J. F. (2018). Noise Increases Listening Effort in Normal-Hearing Young Adults, Regardless of Working Memory Capacity. *Journal of Memory and Language*. doi: 10.1080/23273798.2018.1562084

- Strand, J. F., **Brown, V. A.**, Merchant, M. B., Brown, H. E., & Smith, J. (2018). Measuring Listening Effort: Convergent Validity, Sensitivity, and Links with Cognitive and Personality Measures. *Journal of Speech, Language, and Hearing Research*, 61, 1463–1486. doi:10.1044/2018\_jslhr-h-17-0257
- Strand, J. F., **Brown, V. A.**, Brown, H. E., & Berg, J. J. (2017). Keep Listening: Grammatical Context Reduces but does not Eliminate Activation of Unexpected words. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 44, 962–973. doi: 10.1037/xlm0000488

## PEER-REVIEWED CONFERENCE PROCEEDINGS

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- **Brown, V. A.**, Chen, X., Hedayati, M., Sikes, C., Strand, J., Wilson, T., & Liben-Nowell, D. (2019). Node Ordering for Rescalable Network Summarization (or, the Apparent Magic of Word Frequency and Age of Acquisition in the Lexicon). *Proceedings of the 7<sup>th</sup> International Conference on Complex Networks and Their Applications*.

## MANUSCRIPTS IN PROGRESS

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- **Brown, V. A.**, McConkey, S. Dwyer, N., Van Engen, K., J., Firszt, J. B., & Peelle, J. E. (data analyzed; manuscript in preparation). Face mask type affects audiovisual speech intelligibility and subjective listening effort in listeners with cochlear implants.

## ACADEMIC AWARDS

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- **Arthur D. Behrendt Scholarship, F20**
  - Part of the Washington University Scholars in Arts & Sciences Program
  - Awarded annually to an outstanding second year Ph.D. student
  - Nomination is determined by the Director of Graduate Studies in the department of Psychological & Brain Sciences
- **Arthur D. Behrendt Scholarship, F19**
- **Received distinction on undergraduate senior thesis:** “More than meets the ear: Contributions of vision to spoken word recognition”
  - Nomination for distinction is determined by a Carleton faculty member, and the decision is made by a panel of outside faculty
- **Graduated with distinction** in the Carleton College Psychology Department
- **John K. Bare Prize in Psychology**
  - Awarded annually to “a graduating senior who has demonstrated outstanding achievement in the study of psychology.”
- **Scott Tyler Bergner Prize** for the Carleton College Class of 2017
  - This prize is awarded each year to “a member of the senior class who has an outstanding academic record and who has demonstrated excellence of thought and character.”

## INVITED TALKS (presenters marked with an asterisk)

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- **Invited Research Talks:**
  - \***Brown, V.**, Sewell, K., Villanueva, J., & Strand, J. (November 2024). Noisy Speech Impairs Retention of Previously-Heard Information Only at Short Time Scales. 65<sup>th</sup> Annual Meeting of the Psychonomic Society, New York, NY.

- \***Brown, V.** (October 2023). Listening With Open Eyes: How Seeing the Talker's Face Affects Speech Identification and Multitasking Performance. Invited talk at Rhodes College.
  - \***Brown, V.** (April 2022). Impaired performance in noise: Disentangling listening effort from the irrelevant speech effect. Washington University in St. Louis Psychological & Brain Sciences Division of Brain, Behavior, and Cognition Brown Bag Series.
  - \***Brown, V.** (June 2021). Face mask type affects audiovisual speech intelligibility and listening effort in young and older adults. Gorilla Experiment Builder BeOnline 2021 Conference.
  - \***Brown, V.** (March 2021). Face mask type affects audiovisual speech intelligibility and listening effort in young and older adults. Washington University in St. Louis Psychological & Brain Sciences Division of Brain, Behavior, and Cognition Brown Bag Series.
  - **Brown, V.**, Fox, N., \*Strand J. (November 2020). "Where are the . . . fixations?": Grammatical number cues guide anticipatory fixations to upcoming referents and reduce lexical competition. Presented at the Annual Meeting of the Psychonomic Society.
  - \***Brown, V.** (October 2020). Where are the...fixations?: Grammatical number cues guide anticipatory fixations to upcoming referents and reduce lexical competition. Washington University in St. Louis Linguistics Brown Bag Series.
  - \***Brown, V.** (December 2019). Anticipatory effects of grammatical context in sentence recognition. Washington University in St. Louis Psychological & Brain Sciences Division of Brain, Behavior, and Cognition Brown Bag Series.
  - \***Brown, V.** (November 2019). About face: Seeing the talker improves spoken word recognition but increases listening effort. Masters Defense, Washington University in St. Louis
  - \***Brown, V.** (January 2019). Masking Maskers. Washington University in St. Louis Psychological & Brain Sciences Division of Brain, Behavior, and Cognition Brown Bag Series
  - \***Brown, V.** (October 2018). Talking points: A modulating circle reduces listening effort without improving speech recognition. 23<sup>rd</sup> Annual Mid-Continental Phonetics & Phonology Conference, Evanston, IL.
  - \***Brown, V.** (July 2018). More than meets the ear: Visual contributions to speech perception. Carleton College Summer Science Tea Talks (with Julia Strand).
- **Invited Teaching and Methods Talks:**
- \***Brown, V.** (November 2023). Introduction to Sensation and Perception. Invited talk at LREI high school, New York, NY.
  - \***Brown, V.** (September 2023). Preregistration via the Open Science Framework: Theory, Benefits, Common Questions, and How-To. Invited Zoom talk at Florida State University.
  - \***Brown, V.** (November 2022). Data Cleaning in R. Graduate Student Brown Bag Series at Washington University in St. Louis.
  - \***Brown, V.** (May 2022). Preregistration via the Open Science Framework: Theory, Benefits, Common Questions, and How-To. Washington University in St. Louis departmental talk.
  - \***Brown, V.** (March 2022). "Advanced ggplot." Graduate Student Brown Bag Series at Washington University in St. Louis.
  - \***Brown, V.** (February, 2022). Carleton College Psychology "Department Curriculum Committee" Panel on Graduate School in Psychology.

- \***Brown, V.** (September 2021). Data Cleaning in R. Graduate Student Brown Bag Series at Washington University in St. Louis.
- \***Brown, V.** (August, 2021). Graduate Student Mentored Teaching Orientation Discussion Leader at Washington University in St. Louis.
- \***Brown, V.** (April 2021). “Advanced ggplot.” Graduate Student Brown Bag Series at Washington University in St. Louis.
- \***Brown, V.**, (December, 2020). “Introduction to Mixed Effects Modeling in R.” Graduate Student Brown Bag Series at Washington University in St. Louis.
- \***Brown, V.**, (October, 2020). “Introduction to Data Wrangling in R.” Graduate Student Brown Bag Series at Washington University in St. Louis.
- \***Brown, V.** (July, 2020). Carleton College Alumni STEM Graduate School Panel.
- \***Brown, V.** (March 2019). Registered Reports: A first-hand account of a new publication format. Open Science Symposium hosted by Rochester University.

## POSTER PRESENTATIONS (presenters marked with an asterisk)

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- Wennberg, J., Dillman-Hasso, N., \***Brown, V.**, & \*Strand, J. (November 2025). Impaired Performance in Noise: Disentangling Listening Effort from the Irrelevant Speech Effect. 66<sup>th</sup> Annual Meeting of the Psychonomic Society, Denver, CO.
- \***Brown, V.**, Ali, S., Alvarez, A., Avila, L., Kutcher, E., Nyamao, T., Touré, A. & \*Strand, J. (November 2024). Audiovisual Speech by L1 (“Native”) and LX (“Nonnative”) English Speakers. 65<sup>th</sup> Annual Meeting of the Psychonomic Society, New York, NY.
- \***Brown, V.** & Van Engen, K. (November 2023). The Dual-Task Costs of Audiovisual Speech Processing Across Levels of Background Noise and Semantic Constraint. 64<sup>th</sup> Annual Meeting of the Psychonomic Society, San Francisco, CA.
- Strand, J., Villanueva, J., Farwell, G., Rogers, M., Sewell, K., Zhang, X., Berry, N., Hu, F., Paulig, G., & \***Brown, V.** (November 2022). Audiovisual Benefit from Temporal Cues, Digitally-Generated Point-Light Displays, and Natural Faces. 63<sup>rd</sup> Annual Meeting of the Psychonomic Society, Boston, MA.
- Sewell, K., Lin, Y., \***Brown, V.**, & Strand, J. (November 2022). Assessing the Effects of “Native Speaker” Status on Classic Findings in Speech Perception. 21<sup>st</sup> Annual Auditory Perception, Cognition, & Action Meeting, Boston, MA.
- \***Brown, V.**, Dillman-Hasso, N., Li, Z., Ray L., Mamantov, E., Van Engen, K., & Strand, J. (November 2021). Testing the Linguistic Similarity Hypothesis Under Spectrally-Matched Conditions. 62<sup>nd</sup> Annual Meeting of the Psychonomic Society, Virtual.
- \***Brown, V.**, McLaughlin, D. J., Strand, J., & Van Engen, K. Rapid adaptation to fully intelligible nonnative-accented speech reduces listening effort. (December 2020). Presented at the 179<sup>th</sup> Meeting of the Acoustical Society of America, Virtual.
- \***Brown, V.**, \*Dillman-Hasso, N., \*Li, Z., \*Ray L., \*Mamantov, E., Van Engen, K., & Strand, J. (November 2020). Lipreading in noise: Cross-modal analysis of the target-masker linguistic similarity hypothesis. 61<sup>st</sup> Annual Meeting of the Psychonomic Society, Virtual.
- \*Guang, C., \*Lefkowitz, E., \*Dillman-Hasso, N., \***Brown, V.**, \*Strand, J. (November 2020). Recall of speech is impaired by subsequent masking noise: A direct replication of Rabbitt (1968). 19<sup>th</sup> Annual Auditory Perception, Cognition and Action Meeting, Virtual.
- \***Brown, V.**, & \*Strand, J. (November 2019). About face: Seeing the talker improves spoken word recognition but increases listening effort. Presented at the 60<sup>th</sup> Annual Meeting of the Psychonomic Society, Montreal, Québec, Canada
- \*Ray, L., \*Dillman-Hasso, N., **Brown, V. A.**, Hedayati, M., Zanger, A., Mayn, S., & Strand, J. F. (November 2019). What accounts for individual variability in susceptibility to the

- McGurk effect? Presented at the 18<sup>th</sup> Annual Auditory Perception, Cognition, & Action Meeting, Montreal, Québec, Canada
- \*Strand, J., \*Brown, V., & Barbour, D. (November 2018). Talking points: A modulating circle reduces listening effort without improving speech recognition. Presented at the 59<sup>th</sup> Annual Meeting of the Psychonomic Society, New Orleans, LA.
  - \*Brown, V., Hedayati, M., Zanger, A., Mayn, S., Ray, L., Dillman-Hasso, N., & \*Strand, J. (November 2018). Presented at the 17<sup>th</sup> Annual Auditory Perception, Cognition, and Action Meeting, New Orleans, LA.
  - Strand, J., \*Brown, V., Merchant, M., Brown, H., & Smith, J. (November 2017). Measuring listening effort: Convergent validity, sensitivity, and links with cognitive and personality measures. Presented at the 16<sup>th</sup> Annual Auditory Perception, Cognition, and Action Meeting, Vancouver, BC.
  - \*Strand, J., \*Brown, V., & Brown, H. (November 2016). Keep listening: Grammatical context reduces but does not eliminate activation of unexpected words. Presented at the 57<sup>th</sup> Annual Meeting of the Psychonomic Society, Boston, MA.
  - \*Brown, V., Brown, H., \*Smith, J., \*Hedayati, M., Zanger, A., \*Wennberg, J., & Strand, J. (April 2017). Contributions of an abstract visual stimulus to speech recognition and listening effort. Presented at the annual Minnesota Undergraduate Psychology Conference, Northfield, MN.
  - \*Brown, V., & Strand, J. (October 2016). Grammatical context reduces but does not eliminate activation of unexpected words. Presented at the Carleton College Research Symposium & Celebration, Northfield, MN.

## SERVICE TO THE FIELD

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- **Ad hoc reviewer:** Nature: Scientific Reports; Collabra; Cognitive Research: Principles & Implications; Attention, Perception, & Psychophysics; Journal of Speech, Language, & Hearing Research; International Journal of Audiology; Ear & Hearing; Journal of the Acoustical Society of America Express Letters; Trends in Hearing

## SKILLS AND PROFESSIONAL EXPERIENCE

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- **Statistical consulting**, Katherine White, Rhodes College
- **Statistical programming and computer proficiency**
  - o R, ffmpeg, Python, SuperLab, Microsoft Office, Paperpile, Mendeley, Adobe Audition, Audacity, Adobe Premiere Pro, Final Cut Pro, iMovie
- **Statistics training**
  - o Extensive experience using R to perform regression analyses (ordinary, multiple, logistic), ANOVA, likelihood ratio testing, linear mixed effects modeling, and data cleanup
  - o Relevant statistics courses: Applied Multivariate Analysis, Hierarchical Linear Modeling, Selected Topics in Design and Statistics, Applied Longitudinal Analysis, Advanced Statistical Modeling, Probability, Statistical Inference, Statistical Consulting, Linear Algebra, Multivariable Calculus, Research Design and Methods, Data Analysis in Psychology, Applied Regression Analysis

## WORKSHOPS ATTENDED

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- Teaching Pedagogy:

- **Carleton College:** What is Reading For and How Do We Teach It? | Welcome to the Meta-Verse: Learning About Scholarship of Teaching and Learning | Gradescope: Making Your Grading Life Easier | Information Literacy for Research | Finding Value and Meaning in Learning in a World With AI, AI Developments You Should Know About | Students' Critical AI Literacy | Moodle 4.5: What to Expect
- **Washington University in St. Louis:** Writing a Teaching Philosophy Statement | Creating a Teaching Portfolio | Developing Effective Summative Assessments, Classroom Assessment Techniques | Fostering an Inclusive Classroom Climate | Facilitating Effective Discussions | Incorporating Active Learning into Lectures | Increasing Student Participation
- Safe Zone Training, *Washington University in St. Louis*
  - The goal of this training is to educate individuals on college campuses about Lesbian, Gay, Bisexual, Transgender and Queer/Questioning (LGBTQ) issues and help participants become better allies to LGBTQ students, staff, administrators, and faculty.

## ACTIVE SOCIETY MEMBERSHIPS

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- **Psychonomic Society**
- **Phi Beta Kappa Society**