

2009:P1 – Abbreviation Effect in Word Length

- Supervisor:** Dr Liam Hendry
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- Research Purpose:** This project examines the Word Length Effect in Short Term Memory. Instead of the classic “long word vs short word” paradigm, a new setting is proposed using words which have both long and short forms. Long words will be abbreviated at different points in the experiment to determine input, storage and output effects. Participants will need to study lists of words and their abbreviations prior to undergoing the actual experiment.
- Research Description:** This project will examine the well-known and robust Word Length Effect using abbreviations of long words. The ever-present Baddeley model will be a major starting point, other models will also inform the Literature Review and Discussion sections.
Additional models will focus on effects of abbreviations during encoding, storage and/or output of either long or short forms of words.
- Participants:** An absolute minimum of 20 participants will be needed. Participants will ideally be first year psychology students from the experimental pool. Community volunteers could be used if necessary.
All data will have to be collected by the end of Semester 1 2009.
- Methodology:** Laboratory based study involving variations on immediate serial recall task.
Some materials development using the MRC Psycholinguistic Database will be required in the early stages of the project.
On-campus data collection in W4 labs in individual sessions of less than an hour’s duration.
- Data Analysis:** Quantitative analysis involving t-tests, ANOVA mainly, possibly correlation.
Students will conduct all analyses (at undergraduate level of knowledge) themselves. Some data screening may be necessary.
- Student friendliness:** This project is suitable for on campus students. It is possible that it could be carried out by an external student subject to discussions with supervisor beforehand.
This project will involve individual testing of participants in a laboratory setting.
Supervision expectations would vary from weekly to fortnightly, depending upon stage of project, usually in person (but by phone for externals).
- Further reading:** Baddeley, A. D. (2003). Working memory: Looking back and looking forward. *Nature Reviews Neuroscience*, 4, 829-839.
Brown, G. D. A., & Hulme, C. (1995). Modelling item length effects in memory span: No rehearsal needed? *Journal of Memory and Language*, 34, 594-621.
Cowan, N. (2001). The magical number 4 in short-term memory: A reconsideration of mental storage capacity. *Behavioural and Brain Sciences*, 24, 87-185.

Neath, I., & Nairne, J. S. (1995). Word-length effects in immediate memory: Overwriting trace decay theory. *Psychonomic Bulletin & Review*, 2, 429-441.

Expected research outcomes: Probable APS Conference Presentation 2009/2010; Probable Journal Article either jointly or multiple authors.

Ethics:

This acts as a check for the supervisor

- Ethical approval will be sought by supervisor; or
 - Ethics approved – number
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Resources:

This acts as a check for the supervisor

- Project able to be funded within \$150 departmental limit
 - Project not able to be funded within \$150 departmental limit – additional funds will come from:
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