Outpost Loss or Rehearsal Loop? Output Time vs Pronunciation Time Limits in Immediate Recall for Forgetting-Matched Materials Barbara Anne Dosher, Jian-Jiang Ma

This project investigates forgetting during the act of recall itself as one limit on memory span. Output time and accuracy were measured in immediate serial recall for three sets of stimuli using either spoken or keypress recall modes. The stimuli were digits, and sets of letters and words which were approximately matched in phonemic discriminability, and for immediate recognition memory (Dosher, 1991, 1996). These matched materials nonetheless differ from one another in recall span, in output time during recall, and in measured pronunciation time (speech rate). Recall output times account precisely and completely for measured span for these matched materials. Classic measures of pronunciation time (Baddeley, 1986) are correlated with output time, but recall output time gives a slightly better account of the differences n recall accuracy. For these materials, the output time equivalent to Baddeley's rule that the span is the number of items which can be said in about 1.5 - 2 s is that span is the number of items which can be recalled in about 4-6 sec. Additional variations in span reflect item interference differences between materials.