



# Item Characteristics and Task Conditions that Predict the Rate of Forgetting

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## INTRODUCTION

- For several decades, psychologists have been interested in the way in which information is forgotten from memory (1, 2, 4).
- Are different types of items forgotten in the same way? When information is easily learned, is it also easily forgotten? Do different learning methods (i.e., self-testing vs. re-reading) affect the rate of forgetting?

## METHOD

### Forgetting of different types of items:

#### Materials:

- 48 obscure facts
  - The most common street name in the U. S. is "Second."
  - The character Betty is missing from the Flintstones Chewable vitamins.
- 48 obscure city-state pairs
  - Worms – Nebraska
  - Panic – Pennsylvania
- 48 face-name pairs (24 male and 24 female)



#### Procedure:

- All subjects ( $n = 57$ ) learned each of the 144 items to a criterion of 1 correct response.
- A sub-set of 8 items from each of the three types was tested after 5 minutes, 1 day, 2 days, 7 days, 14 days, and 28 days.

### Forgetting following self-testing vs. re-reading:

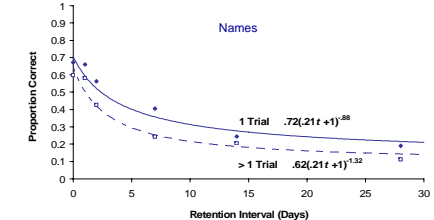
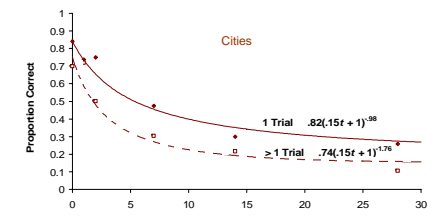
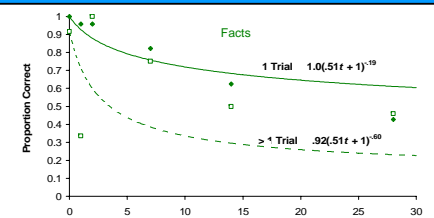
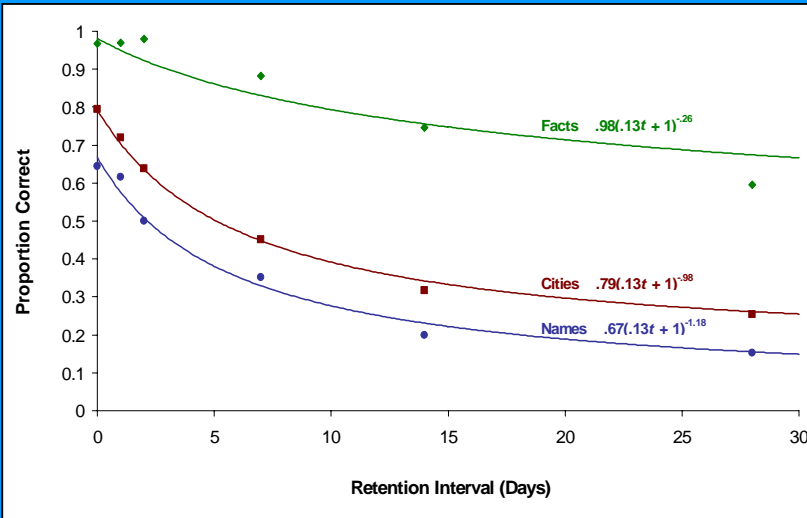
#### Materials: 60 obscure facts

#### Procedure:

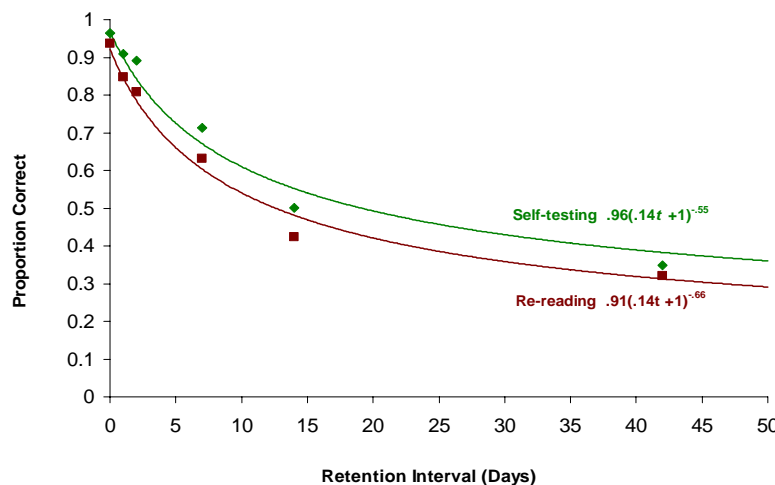
- All subjects ( $n = 55$ ) learned half of the facts by reading them twice (Re-reading), and the other half by reading them once and then trying to recall them (Self-testing).
- A sub-set of 5 items each from Re-reading vs. Self-testing was tested after 5 minutes, 1 day, 2 days, 7 days, 14 days, and 42 days.

**Measuring forgetting:** A power function  $y = a(bt + 1)^{-c}$  was fit to the data using maximum likelihood estimation (Myung, 2003) to estimate the degree of learning ( $a$ ) and rate of forgetting ( $c$ ) associated with all experimental conditions.

## FORGETTING FOR FACTS, CITIES, AND FACE-NAME PAIRS



## FORGETTING FOR SELF-TEST VS. RE-READ



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Presented at the Annual Meeting of the Institute of Education Sciences (IES), Washington, DC, June 7-8, 2007. The research reported here was supported by the IES, U. S. Department of Education, through Grant R305H040108 to UCSD. The opinions expressed are those of the authors and do not represent views of the Institute or the U. S. Department of Education. Address correspondence to Shana Carpenter, UCSD (scarpenter@ucsd.edu).