

# The Role of Underlining in the Ability to Recognize Words



Grupo de Investigação em Memória Humana  
Escola de Psicologia - Universidade do Minho

Pedro B. Albuquerque<sup>1</sup>, Pedro F. S. Rodrigues<sup>2</sup>, Andreia Ribeiro<sup>1</sup>, & Beatriz Gomes<sup>1</sup>

<sup>1</sup> School of Psychology, University of Minho, Portugal

<sup>2</sup> Portucalense Institute for Psychology (I2P), Portucalense University, Portugal

## Introduction:

Underlining is a widely used study technique. Research about underlining usefulness has been scarce and somewhat inconsistent (Bell & Limber, 2010; Dunlosky et al., 2013). Underlining has been classified as a typographic cue that drives the reader's attention to the most important parts of a text (Bell & Limber, 2010; Golding & Fowler, 1992). This work aimed to explore the role of the underlining in memory, specifically its effectiveness in word recognition.

## Does the underline benefit memory?

### Study 1

$N = 48$  students ( $M = 20.72$ ;  $SD = 3.10$ )

Within-participant design

Participants were instructed to actively underline marked words (↵) and read unmarked words silently

### Study 2

$N = 48$  students ( $M = 21.69$ ;  $SD = 3.11$ )

Within-participant design

Participants were instructed to silently read underlined words (passive underlining) and read unmarked words silently

### Study 3

$N = 40$  students ( $M = 21.33$ ;  $SD = 4.16$ )

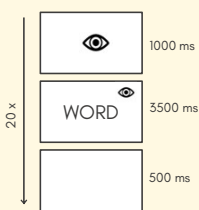
Within-participant design

Participants were instructed to actively underline (without color) marked words and read unmarked words silently

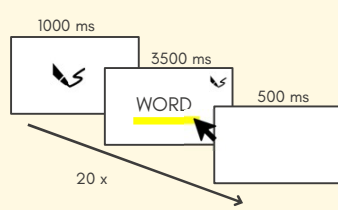
## Procedure

### Study Phase

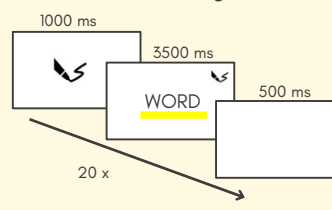
Silent reading



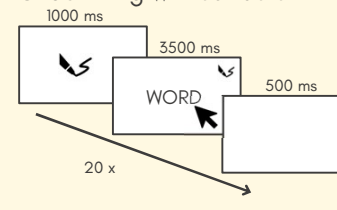
Underlining with color



Passive Underlining



Underlining without color

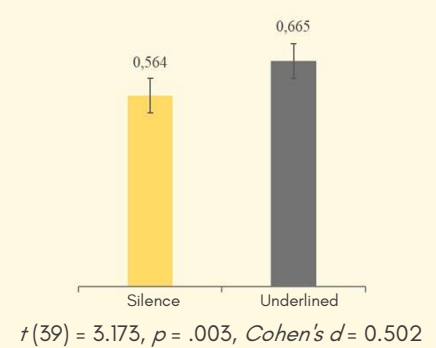
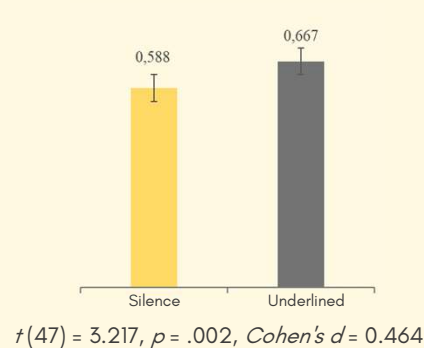
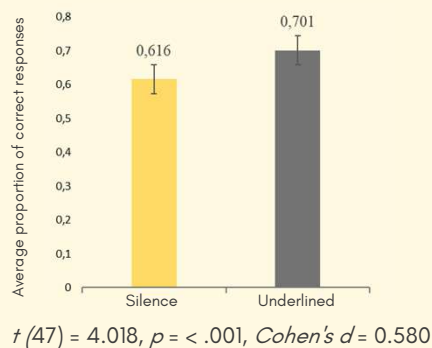


### Test Phase



Did you study this word?  
Yes / No

## Results



## Conclusions:

- ✓ Underlining is a form of study, and both underlining with or without color and reading words already underlined contribute to an increase in later recognition of the words
- ✓ This effect could be explained by distinctive elements of these study techniques, specifically, visual enhancement and motor execution

## References:

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- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, Supplement, 14*(1), 4-58. <https://doi.org/10.1177/1529100612453266>
- Golding, J. M., & Fowler, S. B. (1992). The limited facilitative effect of typographical signals. *Contemporary Educational Psychology, 17*(2), 99-113. [https://doi.org/10.1016/0361-476X\(92\)90052-Z](https://doi.org/10.1016/0361-476X(92)90052-Z)

