



The Impact of Colored Text on 1337 (Leet) Speak Comprehension



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Introduction

Leet speak is a form of written communication that has risen in popularity among gaming and online communities. It involves the substitution of letter-like symbols and numbers, also known as homoglyphs, for letters of the English alphabet.

Previous research suggests that words in their Leet form can be read by individuals who have no prior experience reading Leet speak (Perea, Duñabeitia, & Carreiras, 2008); however, this research replaces a limited list of letters (A, E, I, and S) with symbols and numbers.

In this pilot study we sought to learn more about cognitive processes involved in the Stroop Task using Leet speak stimuli.

Aims

Integrate a more extensive list of Leet letters than previous research (Perea et al. 2008) so participants face words that are similar to real Leet speak.

Determine if the Stroop Effect can be reproduced using Leet speak.

Explore order effects of the progression of slides used to assess the Stroop Effect.

Assess the impact of subject variables on the ability to read Leet speak and name text color.

Leet Alphabet

A 4	E 3	I	M / \	Q Q	U ()	
B B	F F	J	N / \	R R	V \	Y ' /
C C	G 9	K <	O O	S \$	W \ /	Z z
D	H -	L 1	P ¶	T +	X > <	

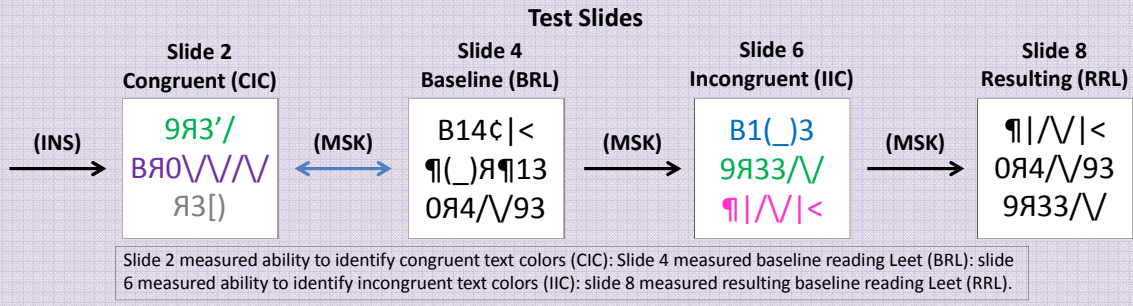
Method

Subjects - 13 males and 36 females (n=49) undergraduates were recruited from various psychology courses. Researchers administered a PowerPoint slideshow during the first 15 minutes of regular class time.

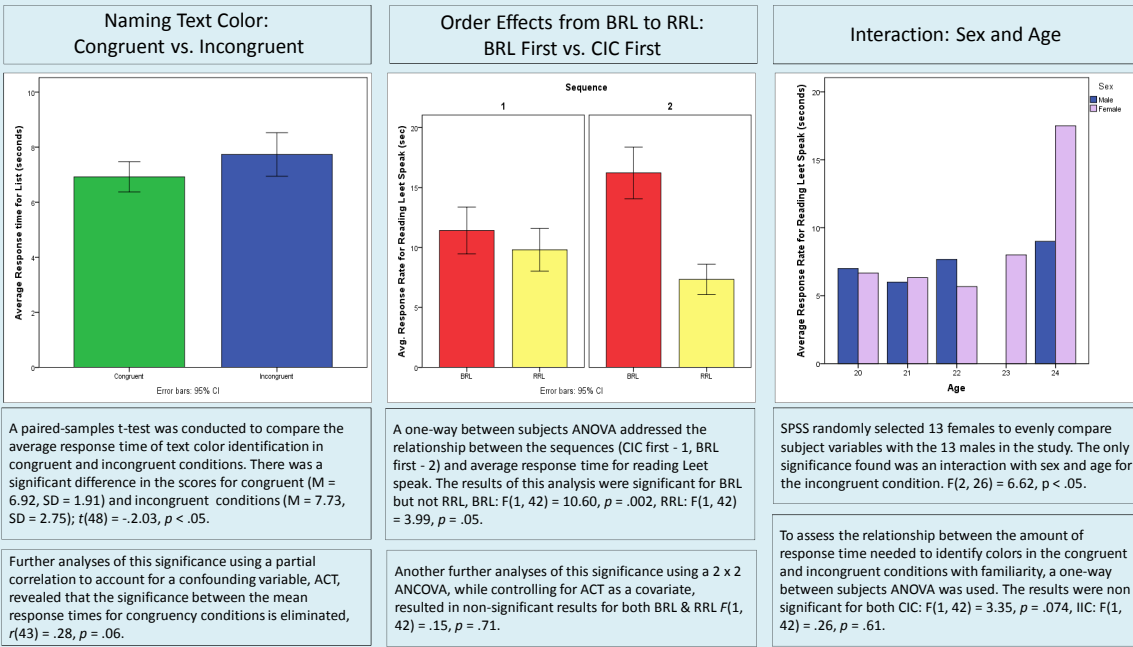
Procedure - Subjects either read lists of Leet words or reported the color of the test stimuli. After completing the task on each test slide, participants recorded their times on a score sheet using a timer in the corner of each slide. Participants also provided demographic information (sex, age, ACT score, estimated hours/day of computer usage, and familiarity with Leet speak).

Instrument

One instructional (INS) slide and three masking (MSK) slides provided directions for 4 test slides that each contained 3 lists of 3 color words written in Leet. Masks attempted to reduce the possibility of short term memory recall when reading Leet speak. In Sequence 1 (n = 31), subjects were exposed to the standard series of slides shown below. In Sequence 2 (n = 18), slides 2 and 4 were swapped.



Results



Discussion

Our results reveal that Leet speak can produce the effects demonstrated in the Stroop Task. Interestingly these results were eliminated when we statistically controlled for ACT as a covariant. Given the effect of this subject variable and the possibility of diverse parametric effects, we believe a number of methodological improvements will strengthen the results of our study. These include using consistent list formatting and fonts, maintaining a consistent conditional format (BRL, CIC, IIC, RRL), increasing time limits, and improving instructions. Overall, we are confident that we can test new hypotheses about the Stroop Task using new stimuli such as Leet speak.

References: Perea, M., Duñabeitia, J., & Carreiras, M. (2008). R34DING WORDS WITH NUMB3RS. *Journal Of Experimental Psychology: Human Perception And Performance*, 34(1), 237-241. doi:10.1037/0096-1523.34.1.237

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