

The background features several light gray, curved lines that sweep across the frame, creating a sense of motion and depth. Two starburst shapes, resembling stylized suns or galaxies, are positioned in the lower-left and upper-right quadrants, adding a celestial or cosmic feel to the design.

PsycInfo

A brief tutorial

Step by step instructions

- * 1. Click on link to PsycInfo from my website.
- * 2. Click on the yellow “not logged in” button in the upper left of the screen.
- * 3. Login with your RUID and password
 - Click login
- * 4. When you’re back to the PsycINFO page click connect
- * 5. Enter search term (e.g., stereotypes)
- * 6. Select subject headings that reflect your topic of interest (or if none are similar, your search term will be listed at the bottom).
 - Click continue
- * 7. Click Display for a list of the relevant articles
- * 8. Click on abstract to quickly see if article is what you’re looking for.

When you find the article you want...

- * 1. Click on “search for article”
- * 2. Close out pop up
- * 3. Right click on “click this link to open the document” and select “open link in new tab”
- * 4. Click on any link that says “article”
 - If there is no link, then you’ll have to find another article or go retrieve the actual journal from the library and make a copy of the article
- * 5. Follow links for fulltext article (or pdf).
- * **If you run into trouble, email me the full reference for the article, and I will check if the fulltext is available.**

The background features several thick, light gray curved lines that sweep across the frame. Two starburst shapes, each with eight points, are positioned on the left and right sides. The text "Let's try one" is centered in the middle of the image.

Let's try one

The background features several light gray, curved, overlapping lines that sweep across the frame. Two starburst shapes, resembling stylized suns or galaxies, are positioned on the left and right sides, partially overlapping the curved lines.

Working Memory Lab

Analyses

Hypotheses

- * **Theory 1:** According to our model of memory, information is available for recall only if it never left working memory (no interference was presented) or it was successfully transferred to LTM storage.
 - **Hypothesis 1a: Percent recall for 5-letter strings will be lower overall than percent recall for 3-letter strings** (fewer letters → easier for them to be consolidated and stored in LTM before distraction begins)
 - **Hypothesis 1b: Subtraction task will disrupt rehearsal, leading to lower percent recall at longer delays** (in *both* letter-string conditions).

Hypotheses

- * **Theory 2: When there is little interference, items can be retrieved directly from WM without the need for rehearsal.**
 - **Hypothesis 2: The graph for 3-letter strings will show a substantial boost in performance at very short delays; the graph for 5-letter strings will not show the same pattern (because the 5 letters will interfere too much with one another).**

Variables of interest

*

* **IV 1:** Length of stimuli (3 letters vs. 5 letters). **BLCK**

– 1 = 3 letters

– 2 = 5 letters

* **IV 2:** Time delay between stimulus presentation and recall. **DELY**

* **DV:** Percent of stimuli recalled correctly. **CORRECT**

Analysis

- * We're interested in the accuracy of your memory
- * Create new variable, name it 'correct'
- * Need to compare stim to resp fields
- * If the same, correct = 1
- * Different, correct = 0

Plot the data

- * We want to look at performance as a function of block and delay
- * Graph->Legacy Dialogues>Line->Multiple
- * Lines represent other stat: correct
- * Category axis is delay
- * Define lines by blk
- * These will be your forgetting curves
- * Does it look like delay or block had an effect?

One ANOVA for our questions

- * Go to analyze->General linear model->univariate
- * Dependent variable is 'correct'
- * Fixed factors are dely and blk
- * Options: descriptive statistics
- * **Note: This is a 2 (Block) x 5 (Delay) between subjects ANOVA**
 - What'd you find?

I want your output

- * Save the .spo SPSS output file as [your name].spo and email it to me now
 - I just want the descriptive statistics, ANOVA table and the graph (select and delete other information)
 - Ask me if you're not sure

Is performance on the subtraction task associated with performance on the memory task?

- * Transform->compute variable
- * Target Variable: SubAccuracy
- * $n_{\text{right}}/n_{\text{tot}}$
- * That will be the proportion of the subtraction trial you answered correctly
- * Analyze->correlate->bivariate->correct & SubAccuracy
- * What did you find? What did you expect to find?

Class Data

- * Analyze -> General Linear Model -> Repeated Measures
- * Name Factor 1 "block" - number of levels = "2"
- * Name Factor 2 "delay" = number of levels = "2"
- * Pull over everything but subject (in the order they are listed)
- * Options -> Display means for block and delay, and check descriptive statistics -> continue
- * Ok.
- * **Note: This is a 2 (Delay) x 2 (Block) within-subjects ANOVA.**

ANOVA table

Source	df group	df error	F	Sig.
Block	1	7	58.183	.000
Delay	1	7	6.580	.037
Block*Delay	1	7	.938	.365

Descriptive Statistics Table

		Delay		
		Short	Long	Total
Block	3 letters	$M = 1.00$ $SD = .00$	$M = .86$ $SD = .10$	$M = .93$ $SD = .02$
	5 letters	$M = .64$ $SD = .21$	$M = .60$ $SD = .16$	$M = .62$ $SD = .05$
Total		$M = .82$ $SD = .04$	$M = .73$ $SD = .04$	

Final Project: Full Lab Report

- * Complete APA-style manuscript
 - You have an example, so no excuses!
- * **Due Thursday, July 5th by 12:15**
 - Normal late penalties apply!

Final project

- * **Abstract:** 1-2 sentences summarizing each major element of the full report (less than 250 words).
- * **Introduction:** Include at least three references, properly cited, and for extra credit use PsycInfo to find one or two newer studies that relate to this research.
- * **Methods:** Divided into the following sections...
 - Participants
 - Measures/Apparatus
 - Procedure

Final project: Full research report

- * **Results:** Include results from your ANOVA (three F statistics properly formatted (either $p < .05$ or $p > .05$), a qualitative description of the patterns of your **significant** results (i.e., I want you to report means and SDs for only significant effects - if you don't have any significant results, consider yourself lucky :)).
- * I also want you to report the results from the class data ANOVA (three F statistics properly formatted, as well as a qualitative description of the patterns of the **significant** results (using the correct means and SD - provided in class)).
- * I want you to refer to at least one figure (you can choose whether you want to include the graph from your results or the class results, but you must label and refer to it properly so I know which it is.
 - For extra credit - include an APA style table or figure

Final project: Full research report

- * **Discussion:** summary of results, and whether or not they support our hypotheses, relate back to previous literature, limitations / future research ideas, implications/conclusions
- * **References:** Full references in APA format for any articles you refer to in the text of your report.

Review: Reporting ANOVA results

- * ANOVA results are similar to t-tests, but there are two sources of degrees of freedom that you need to report.
- * The df of the effect is listed next to the independent variable you are testing, and differs depending on the # of levels of that variable
- * The other is the error df, which is the same for all the F-tests of that ANOVA

The effect of block
(# of letters) is here

The effect of
delay is here (not
quite significant)

This is the interaction; this is
whether the effect of one variable
(like delay) has on the dependent
variable (memory accuracy) depends
on the other independent variable (#
letters). The effect is not significant
here

	a	b	c	d	e
1	9	5	5	0	
2	1	9	4		
3	1		6		
4	2	4	6		6
5	8	4	2	8	
6	8	6			
7		6			
8		6			

This is the error degrees
of freedom

a b