

# Writing With Style

## APA Style Made Easy

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### Chapter 5

#### The Results Section

# Report of data analysis

- Accurate
  - Unbiased
  - Complete
  - Insightful
- 
- Order should be based on order of presentation of hypotheses

# Do not

- Omit findings that are unfortunate for the story you wanted to tell.
- Discuss the findings.
- Vary sentence construction for similar statistical reporting.

# Do report

- Numerical value for the statistic
- Degrees of freedom
- Exact  $p$  value
- Effect size
- Direction of effect
- Per cell sample sizes, means, and standard deviations

# More on $p$

- Exact value to 2 or 3 decimal places
- If less than .001 then  $p < .001$
- If your output says probability is .000, that is a rounded off value. Report it as  $p < .001$

**STATISTICS IN YOUR SENTENCES**

# *t* test

The mean something  
( $M = \#\#\.\#\#$ ,  $SD = \#\.\#\#$ ) was  
significantly higher  
than the mean  
something else ( $M = \#\#\.\#\#$ ,  $SD = \#\.\#\#$ ),  $t$   
( $df = \#\.\#\#$ ,  $p = \#\.\#\#\.$

Or  $p < .001$ .

## NOTES

- Italic  $t$ ,  $M$ ,  $SD$ ,  $p$
- Direction of effect indicated
- Specific means identified
- Values reported to 2 decimal places (except  $p$ )
- Spaces on either side of = and <

# Chi-square results

There was a significant relationship between this and that,  $\chi^2 (1, N = ##) = ##.##, p = .###.$

## NOTES

- Italic  $N$  and  $p$  but not Greek chi
- Degrees of freedom and sample size in parentheses
- Values reported to 2 decimal places (except  $p$ )
- Spaces on either side of = and <



# ANOVA

## A one-way ANOVA

comparing the mean something for the three groups was significant,  $F(2, ##) = #.##$ ,  $MSE = #.##$ ,  $p = .###$ ,  $\eta^2 = .##$ .

## NOTES

- Italic  $F$ ,  $MSE$ ,  $p$  but not Greek letter
- Direction of effect missing?
  - Instead report post hoc test that will include means and standard deviations

# Factorial ANOVA

A 2 (first IV)  $\times$  2 (second IV) ANOVA was computed with some DV as the dependent variable. The main effect for the first IV was significant,  $F(2, \#\#) = \#.\#\#$ ,  $MSE = \#.\#\#$ ,  $p = .\#\#\#$ ,  $\eta^2 = .\#\#$ . The mean some DV for a certain group ( $M = \#\#.\#\#$ ,  $SD = \#.\#\#$ ) was significantly higher than the mean some DV for the other group ( $M = \#\#.\#\#$ ,  $SD = \#.\#\#$ ). NOW DO THE SAME FOR THE SECOND IV. THEN THE INTERACTION: The First IV  $\times$  Second IV interaction was significant,  $F(2, \#\#) = \#.\#\#$ ,  $MSE = \#.\#\#$ ,  $p = .\#\#\#$ ,  $\eta^2 = .\#\#$ . IF SIGNIFICANT, THIS INTERACTION NEEDS TO BE EXPLAINED HERE BUT NOT DISCUSSED.

# Notes for factorial ANOVA

- Same stuff about italics and spaces and decimal places as for previous stats
- Use multiplication sign  $\times$  in the symbol menu rather than the letter X when you are using it for the word *by*
- Variables begin with lower-case letters except in the interaction format

# Correlation

- The correlation between some variable and some other one was significant,  $r = -.32$ ,  $p < .001$ .
- Pearson correlations were computed among blah blah variables. See Table 1 for complete correlation matrix.

## NOTES

- Same rules for italics, spaces, and decimal places as before.
- The minus sign for the  $r$  value tells the reader it was negative → no need to say anything more here. (If positive, no plus sign needed.)
- Pearson is someone's name – start with upper-case letter.

# **STATISTICS IN TABLES AND FIGURES**

# Tables vs. figures

- Tables have rows and columns.
- Figures can be graphs, flow charts, photos, line drawings, whatever. This presentation has a focus on graphs.

# Rules common to both tables and graphs

- Place items near each other if they are intended to be compared.
- Labels should be close to the items they refer to.
- Keep the font large enough to read easily.
- Abbreviations should be obvious or explained in a note.
- Single line spacing is permitted if it enhances clarity.
- Number them in the order in which they occur in the text — but one series of numbers for tables and another for figures.

# Tables get titles, figures get captions

- Indicate what variables are contained in a general way.
- Include enough information so that the reader can browse the article but still understand the tables and figures without reading the article closely.



# Tables

Table 1

*The Title Should Be Here in Italics*

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The whole table goes here

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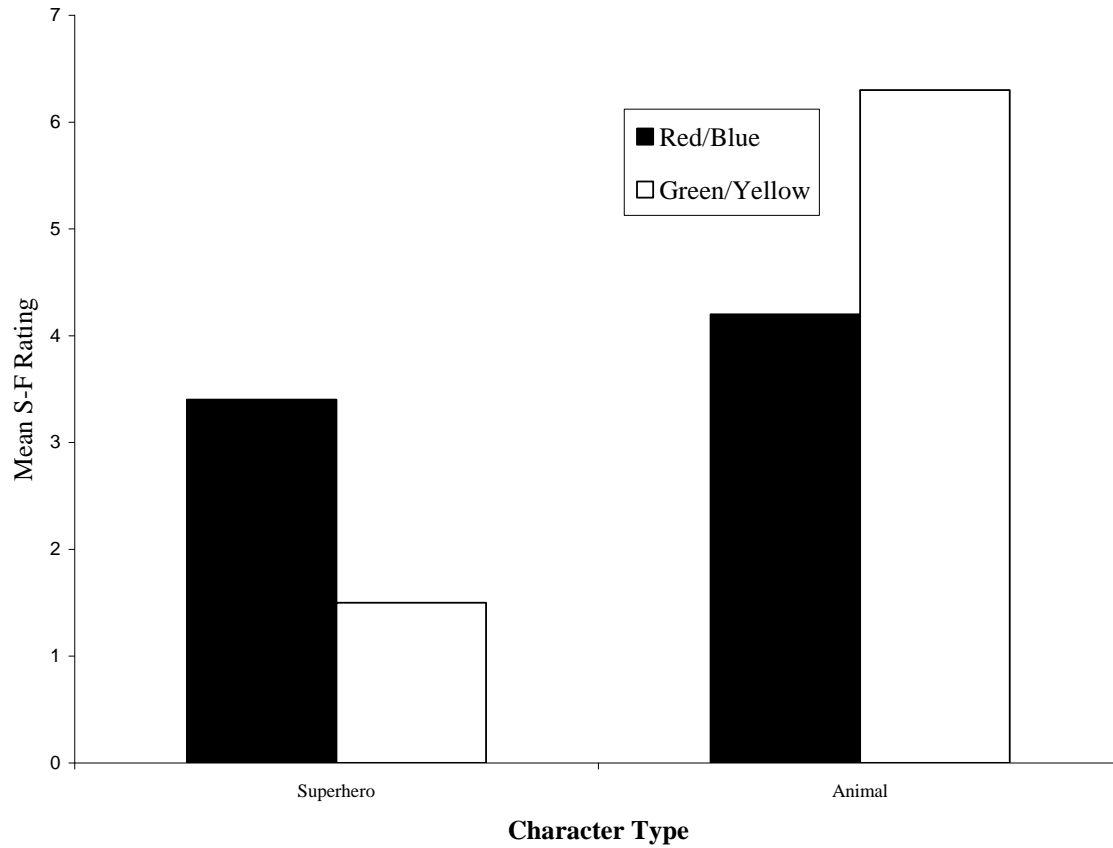
*Note.* Optional here.

\* $p < .05$     \*\* $p < .01$     (do it this way if you do it)

# Tables

- No vertical lines
- Horizontal lines before and after, and between column headers and data — not between rows of data
- Line up decimal points vertically
- Every column needs a heading
- Means need standard deviations
- Look at journals and/or APA manual for samples before trying at home

# Graphs



*Figure 2.* Mean ratings on the sensitive and friendly scale as a function of character type and color combination.

# Graphs

- Figure caption is below the figure. Note italics situation. Also, it ends with a period even if it is not a sentence.
- IV on *x*-axis and DV on *y*-axis (which is the shorter one)
- Label axes
- No color — only black and white (not even gray!) Try diagonal stripes if you need a third bar, and for line graphs, differentiate plot points, not lines.

# Graphs

- Legend goes inside the graph area
- No box around the graph
- No gridlines

**ODDS AND ENDS**

- Letter symbols are italicized.
- Greek letters not.
- Letters that are abbreviations (like *M*) belong only in parentheses.
- Use spaces between symbols and within equations.

- Number words vs. numerals
  - Use numerals for 10 and above; words for nine and below
  - BUT
    - Never begin a sentence with a numeral
    - Use numerals for units of measure: 5 days, 5 cm
    - Use numerals for scales: 7-point scale
  - AND
    - Use the symbol % when preceded by a numeral: 13%
    - Use the word when preceded by a word: two percent



- Use metric units
- Use a zero before a decimal point rather than nothing — unless nothing is all it can ever be:  
 $p = .056$        $M = 0.12$
- Round to 2 decimal points except for exact  $p$ , which can be 3
- Look up abbreviations for measurements and prefer them to words (cm is better than centimeters)
  - Leave a space between the number and that abbreviation: 2 cm

- Word your sentences so that statistical results follow a comma rather than appear within parentheses.
- Use math symbols as math symbols — not as words.
  - No: The mean equaled 6.12
  - Yes: The mean was 6.12
  - Yes: ( $M = 6.12$ )