

**Εγχειρίδια Στατιστικής και SPSS που βρίσκονται στο διαδίκτυο και μπορείτε να κατεβάσετε**

1. An introduction to *statistical methods and data analysis* / R. Lyman Ott, Michael. Longnecker.

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiMtuLI3KLLIAhXww8QBHcGyCE0QFjAAegQIBBAC&url=https%3A%2F%2Feclass.uoa.gr%2Fmodules%2Fdocument%2Ffile.php%2FECD363%2F%25CE%2592%25CE%25B9%25CE%25B2%25CE%25BB%25CE%25B9%25CE%25BF%25CE%25B3%25CF%2581%25CE%25B1%25CF%2586%25CE%25AF%25CE%25B1%2FStatistical%2520Methods%2520and%2520Data%2520Analysis%2520Ed.pdf&usg=AOvVaw2pjHzhKP1d98icMMfYovf2>

2. A Handbook of Statistical Analyses using SPSS / Brian S. Everitt and Sabine Landau.

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwjlu92W4KLLIAhXjxMQBHecfDNcQFjABegQIBBAC&url=http%3A%2F%2Fwww.academia.dk%2FBiologiskAntropologi%2FEpidemiologi%2FPDF%2FSPSS\\_Statistical\\_Analyses\\_using\\_SPSS.pdf&usg=AOvVaw18WQeOj5jEKncZ9x89ryZ1](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwjlu92W4KLLIAhXjxMQBHecfDNcQFjABegQIBBAC&url=http%3A%2F%2Fwww.academia.dk%2FBiologiskAntropologi%2FEpidemiologi%2FPDF%2FSPSS_Statistical_Analyses_using_SPSS.pdf&usg=AOvVaw18WQeOj5jEKncZ9x89ryZ1)

3. Σύντομο Εγχειρίδιο SPSS 16.0. Πέτρος Ρούσσοσ & Γιώργος Ευσταθίου.

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiKp-C05KLLIAhVbwsQBHUPOAd0QFjAAegQIABAC&url=http%3A%2F%2Fwww.psych.uoa.gr%2F-roussosp%2Fstats%2FManual\\_SPSS16.pdf&usg=AOvVaw1b455sBsMx995MiQAUtg-4](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiKp-C05KLLIAhVbwsQBHUPOAd0QFjAAegQIABAC&url=http%3A%2F%2Fwww.psych.uoa.gr%2F-roussosp%2Fstats%2FManual_SPSS16.pdf&usg=AOvVaw1b455sBsMx995MiQAUtg-4)

4. Γναρδέλλης, Χ. (2013). Ανάλυση δεδομένων με το IBM SPSS Statistics 21, Αθήνα: Εκδόσεις Παπαζήση.

Από το εξαιρετικό αυτό εγχειρίδιο στα Ελληνικά, ο συγγραφέας μας διέθεσε δύο κεφάλαια του που βρίσκονται σ μέσα στον φάκελο «Βιβλιογραφία» της e-class:

Επισκόπηση του IBM SPSS Statistics.rar και  
Frequencies, Descriptives, Explore.rar

### **Σύνδεσμοι σχετικοί με τη συγγραφή εργασίας**

Για το πώς γίνεται η συγγραφή μια επιστημονικής εργασίας και πως αναφερόμαστε στα αποτελέσματα στατιστικών ελέγχων θα σας πρότεινα να μελετήσετε το υλικό των παρακάτω συνδέσμων:

- Σχετικά με τη δομή μιας εργασίας που δημοσιεύεται σε ένα επιστημονικό περιοδικό:

<https://www.bates.edu/biology/files/2010/06/How-to-Write-Guide-v10-2014.pdf>

- Σχετικά με αναφορά σε μέτρα κεντρικής θέσης και διασποράς

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_central\\_tendency\\_and\\_dispersion\\_data\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_central_tendency_and_dispersion_data_in_APA_style.htm)

- Σχετικά με την αναφορά στα αποτελέσματα του t-test ανεξαρτήτων δειγμάτων

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_independent\\_samples\\_T\\_test\\_data\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_independent_samples_T_test_data_in_APA_style.htm)

- Σχετικά με την αναφορά στα αποτελέσματα του t-test τιμών κατά ζεύγη

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_paired\\_samples\\_T\\_test\\_data\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_paired_samples_T_test_data_in_APA_style.htm)

- Σχετικά με την αναφορά στα αποτελέσματα της Ανάλυσης διακύμανσης με ένα παράγοντα μεταξύ των υποκειμένων (ANOVA)

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_a\\_1\\_way\\_between\\_subjects\\_ANOVA\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_a_1_way_between_subjects_ANOVA_in_APA_style.htm)

- Σχετικά με την αναφορά στα αποτελέσματα της Ανάλυσης διακύμανσης με ένα παράγοντα εντός των υποκειμένων (ANOVA)

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_a\\_1\\_way\\_within\\_subjects\\_ANOVA\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_a_1_way_within_subjects_ANOVA_in_APA_style.htm)

- Αναφορά στο συντελεστή συσχέτισης Pearson r

[http://statistics-help-for-students.com/How\\_do\\_I\\_report\\_Pearsons\\_r\\_and\\_scatterplots\\_in\\_APA\\_style.htm](http://statistics-help-for-students.com/How_do_I_report_Pearsons_r_and_scatterplots_in_APA_style.htm)

- Αναφορά σε ελέγχους με την κατανομή  $\chi^2$  (ανεξαρτησίας, καλής προσαρμογής)

<http://web.psych.washington.edu/writingcenter/writingguides/pdf/stats.pdf>

- Ενδιαφέρον Άρθρο με αναφορά στον τρόπο γραφής όλων των αποτελεσμάτων στατιστικών Ελέγχων

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjX4Z2ho9nlAhWrDmMBHW5ABjYQFjAAegQIAxAC&url=http%3A%2F%2Fevc-cit.info%2Fpsych018%2FReporting\\_Statistics.pdf&usq=AOvVaw1uKJplsc9NJ-D58G6ql6aa](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjX4Z2ho9nlAhWrDmMBHW5ABjYQFjAAegQIAxAC&url=http%3A%2F%2Fevc-cit.info%2Fpsych018%2FReporting_Statistics.pdf&usq=AOvVaw1uKJplsc9NJ-D58G6ql6aa)

- “Measures of central tendency were computed to summarize the data for the age variable. Measures of dispersion were computed to understand the variability of scores for the age variable. The following are the results of this analysis;  $N = 10$ ,  $M=22.80$ ,  $SD=8.12$ . When you look at the mean, it appears that most students in our class were of traditional college age. However, based on the large standard deviation, it looks like the ages varied quite a bit.”
- “A paired-samples t-test was conducted to compare hours of sleep in caffeine and no caffeine conditions. There was a significant difference in the scores for caffeine ( $M=5.4$ ,  $SD=1.14$ ) and no caffeine ( $M=9.4$ ,  $SD=1.14$ ) conditions;  $t(4)=-5.66$ ,  $p = 0.005$ . These results suggest that caffeine really does have an hours slept. Specifically, our results suggest that when humans consume caffeine, the number of hours they sleep decreases.”
- An independent-samples t-test was conducted to compare memory for words in sugar and no sugar conditions. There was a significant difference in the scores for sugar ( $M=4.2$ ,  $SD=1.3$ ) and no sugar ( $M=2.2$ ,  $SD=0.84$ ) conditions;  $t(8)=2.89$ ,  $p = 0.20$ . These results suggest that sugar really does have an effect on memory for words. Specifically, our results suggest that when humans consume sugar, their memory for words increases.”
- “A one-way between subjects ANOVA was conducted to compare the effect of sugar on memory for words in sugar, a little sugar and no sugar conditions. There was a significant effect of amount of sugar on words remembered at the  $p<.05$  level for the three conditions [ $F(2, 12) = 4.94$ ,  $p = 0.027$ ]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the sugar condition ( $M = 4.20$ ,  $SD = 1.30$ ) was significantly different than the no sugar condition ( $M = 2.20$ ,  $SD = 0.84$ ). However, the a little sugar condition ( $M = 3.60$ ,  $SD = 0.89$ ) did not significantly differ from the sugar and no sugar conditions. Taken together, these results suggest that high levels of sugar really do have an effect on memory for words. Specifically, our results suggest that when humans consume high levels of sugar, they remember more words. However, it should be noted that sugar level must be high in order to see an effect. Medium sugar levels do not appear to significantly increase word memory.”
- “A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of water that one consumed and rating of skin elasticity. There was a positive correlation between the two variables,  $r = 0.985$ ,  $n = 5$ ,  $p = 0.002$ . A scatterplot summarizes the results (Figure 1) Overall, there was a strong, positive correlation between water consumption and skin elasticity. Increases in water consumption were correlated with increases in rating of skin elasticity.”
- We compared the frequency of using various computational tools in statistics courses by departments of psychology, business, and mathematics. The tools compared were SPSS, Excel, and Minitab. We expected that the tool of choice would vary by department. A chi-square test of independence indicated that the choice of a computational tool was associated with the department in which the statistics course is taught,  $\chi^2(4, N = 88) = 26.881$ ,  $p < .001$ , Cramér’s  $V = .39$ .