

DPELFS Web Quest Series

Quest #2 – Statistics

Types of Variables

http://www.unesco.org/webworld/idams/advguide/Chapt1_3.htm

This section from a guide to a free statistical software package WinIDAMS, developed by UNESCO in cooperation with experts from various countries, defines and illustrates differences between various types of variables according to the level of measurement.

Choosing the Correct Statistical Test in SAS, Stata and SPSS

http://www.ats.ucla.edu/stat/mult_pkg/whatstat/

UCLA's Institute for Digital Research and Education (IDRE) created a table that covers common analyses and helps you choose among them based on the number of dependent variables (outcome variables) and the nature of your independent variables (predictors). The table then shows one or more statistical tests commonly used (correlation, *t*-test, one-way ANOVA, factorial ANOVA, Chi-square test, regression, etc.) given these types of variables and links showing how to do such tests using SAS, Stata and SPSS.

Rice Virtual Lab in Statistics

<http://onlinestatbook.com/rvls/index.html>

This interactive site features an online statistics book HyperStat Online with links to other resources on the web, Java applets that demonstrate various statistical concepts, case studies of real data with analyses and interpretations, and basic statistical analysis tools. You can run simulations/demonstrations of statistical tests using available datasets or entering your own data.

Teach Yourself Statistics

<http://stattrek.com/>

StatTrek.com provides a wealth of tutorials and tools to help you solve statistical problems easily and accurately.

SticiGui

<http://www.stat.berkeley.edu/users/stark/SticiGui/index.htm>

SticiGui, an online textbook by Philip B. Stark, Professor and Chair of Statistics at UC Berkeley, covers statistical concepts in an interactive way. Topics include: measures of central tendency, standard deviation, correlation, regression, probability, sampling, confidence intervals, hypothesis testing, *z*-test, *t*-test, Chi-square test, etc. The software promotes inquiry-based learning by allowing students to reproduce numerical experiments themselves, accompanied by self-test exercises. Also includes video clips of lectures as well as links to a glossary of terms and additional references.

The DPELFS *Web Quest Series* is a collection of web-based resources on varying topics important to educational leaders and researchers. The *Quests* are designed to provide a quick refresher on skills such as conducting a literature review, completing a specific statistical test, or writing in an academic style. Each *Quest* provides a rich and varied set of resources, vetted by professionals, that are only a click away.

Statistics from Khan Academy

http://www.youtube.com/watch?v=uhxtUt_-GyM&list=PLDFF58A7AF01103E5

This series of 67 ten- to fifteen-minute videos briefly introduces basic statistical concepts and tests, accompanied by sample problem solving exercises.

StatSoft Electronic Statistics Textbook

<http://www.statsoft.com/textbook/>

This electronic statistics textbook developed by StatSoft, Inc. (2013) of Tulsa, OK, begins with an overview of the elementary concepts and continues with a more in-depth exploration of specific areas of statistics. Information is organized by "modules" with animated graphs, screen shots, tables and video clips. Includes advanced topics such as factor analysis, power analysis, data mining, text mining, parametric and nonparametric statistics and when to use each method. A glossary of statistics terms and additional resources are included in the appendix.

Henry Madden Library Resources

Books

Carlberg, C. (2011). *Statistical Analysis: Microsoft Excel 2010*. Indianapolis, IN: Que. eBook

Connolly, P. (2007). *Quantitative Data Analysis in Education: A Critical Introduction Using SPSS*. London: Routledge. eBook

Lomax, R. (2000). *Statistical Concepts: A Second Course for Education and the Behavioral Sciences*. Mahwah, N.J.: Lawrence Erlbaum Associates. eBook

Peers, I. S. (1996). *Statistical Analysis for Education and Psychology Researchers*. London: Falmer Press. LB2846 .P37

Rumsey, D. (2011). *Statistics for Dummies*. Hoboken, NJ: Wiley. eBook

Salkind, N. J. (2011). *Statistics for People Who (Think They) Hate Statistics* (4th ed.). Thousand Oaks, CA: Sage. HA29 .S2365

Welkowitz, J. , Cohen, B. , Lea, R. (2012). *Introductory Statistics for the Behavioral Sciences*. Hoboken, N.J.: Wiley. eBook

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