

# List of all readings

Steve Simon

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## Module01

### Required reading

Chapter 1

Conroy. Where do research ideas come from? Available in html format.

### Recommended reading

Locklear. Patient Reported Outcomes. Available in html format.

Deshpande. Patient-reported outcomes: A new era in clinical research. Available in html format and pdf format.

Altman DG. The scandal of poor medical research. BMJ 1994-01-29;308:283. Available in html format.

Smith R. Richard Smith: Medical research—still a scandal. The BMJ Opinion 2014-01-31. Available in html format.

## Module02

### Required reading

- Chapters 2, 3, 14

### Recommended reading

Pauline W. Chen. Bending the Rules of Clinical Trials. The New York Times, October 29, 2009. Available in html format.

Lidz CW, Appelbaum PS, Joffe S, Albert K, Rosenbaum J, Simon L. Competing commitments in clinical trials. IRB. 2009;31(5):1-6. Available in html format or PDF format.

Nathan D, Weatherall D. Academic Freedom in Clinical Research. New England Journal of Medicine. 2002;347:1368-1371. Available in html format or PDF format.

Michael Price. Sins against science. Data fabrication and other forms of scientific misconduct may be more prevalent than you think. Monitor on Psychology, July/August 2010, Vol 41, No. 7. Available in html format.

Steve Simon. StATS: The stubborn insistence on placebos. Available in html format.

Steve Simon. P.Mean: Evaluating private conflicts of interest. Available in html format.

Cassandra Willyard. Should you blow the whistle? What to do when you suspect your adviser or research supervisor of ethical misconduct. Monitor on Psychology, July/August 2011, Vol 42, No. 7. Available in html format.

Smith R. Research misconduct: the poisoning of the well. *J R Soc Med.* 2006;99(5):232-237. doi:10.1258/jrsm.99.5.232. Available in html format or pdf format.

## Module03

### Recommended reading

UMKC University Libraries. Literature Reviews: Graduate Writing Resources. Available in html format.

The Writing Center, University of North Carolina, Chapel Hill. Literature Reviews. Available in html format

Pautasso, Marco. "Ten simple rules for writing a literature review" *PLoS computational biology* vol. 9,7 (2013): e100314. DOI: 10.1371/journal.pcbi.1003149. Available in html format and PDF format.

Kathleen Clarke. Organizing Your Literature: Spreadsheet Style. *Gradhacker blog*, October 24, 2017. Available in html format.

Martin J. Osborne. using bibtex: a short guide. Published January 13, 2008. Available in html format.

Robinson KA, Goodman SN. Systematic Examination of the Citation of Prior Research in Reports of Randomized, Controlled Trials. *Ann Intern Med.* 2011;154(1):50-55. DOI: 10.7326/0003-4819-154-1-201101040-00007. Available in html format.

Ashford University. Writing a literature review. Available in html format.

USC Libraries. The importance of a good literature review. Available in html format.

Leite DFB, Padilha MAS, Cecatti JG. Approaching literature review for academic purposes: The Literature Review Checklist. *Clinics (Sao Paulo).* 2019;74:e1403. Published 2019 Nov 25. doi:10.6061/clinics/2019/e1403. Available in html format or pdf format.

Faryadi Q. PhD Thesis Writing Process: A Systematic Approach—How to Write Your Literature Review. *Creative Education*, 2018; 9: 2912-2919. doi: 10.4236/ce.2018.916219. Available in html format or pdf format.

Hayward A. 5 tips to write a great literature review. *Editage Insights*, 2017-08-23. Available in html format.

Pati D, Lorusso LN. How to Write a Systematic Review of the Literature. *HERD.* 2018;11(1):15-30. doi:10.1177/193758671774738. Available in html format or pdf format.

## Module04

### Required reading

Chapter 5.

### Recommended reading

Richard Feinman. Intention-to-treat. What is the question?. *Nutrition & Metabolism.* 2009;6(1):1. Available in html format and PDF format.

Steve Simon. StATS: Exlcuding placebo responders. *P.Mean website*, June 25, 2004. Available in html format.

Steve Simon. StATS: So you want to volunteer for a research study? *P.Mean website*, August 4, 2004. Available in [html format] (<http://www.pmean.com/04/volunteer.html>).

Douglas G Altman, Kenneth F Schulz. Statistics Notes: Concealing treatment allocation in randomised trials. *BMJ.* 2001 Aug 25; 323(7310): 446-447. Avialble in html format or PDF format.

KP Suresh. An overview of randomization techniques: An unbiased assessment of outcome in clinical research. *J Hum Reprod Sci.* 2011 Jan-Apr; 4(1): 8-11. doi: 10.4103/0974-1208.82352. Available in html format.

Harford T. The random risks of randomised trials. *Financial Times*, April 25, 2014. Available in html format.

Steve Simon. StATS: Is the randomized trial the gold standard for research? P.Mean website, September 23, 2004. Available in html format.

Kenneth F Schulz, David A Grimes. Blinding in randomised trials: hiding who got what. *The Lancet* Volume 359, Issue 9307, 23 February 2002, Pages 696-700. Available, but behind a paywall.

Steve Simon. StATS: Ethics of a placebo group. P.Mean website, August 2, 2001. Available in html format

Hrobjartsson A, Gotzsche PC. Is the placebo powerless? An analysis of clinical trials comparing placebo with no treatment. *N Engl J Med*. 2001 May 24;344(21):1594-602. Review. Available in html format or PDF format

Farnham Street. Regression Toward the Mean: An Introduction with Examples. Available in html format.

James Penston. Large-scale randomised trials - a misguided approach to clinical research. *Medical Hypotheses* (2005) 64, 651-657. Available, but behind a pay wall.

Rebecca A. Clay. More than one way to measure: Randomized clinical trials have their place, but critics argue that researchers would get better results if they also embraced other methodologies. *Monitor on Psychology*. September 2010, 41(8): 52. Available in html format.

Laura Rosen, Orly Manor, Dan Engelhard, and David Zucker. In Defense of the Randomized Controlled Trial for Health Promotion Research. *Am J Public Health*. 2006 July; 96(7): 1181-1186. doi: 10.2105/AJPH.2004.061713. Available in html format or PDF format.

Niemansburg SL, van Delden JJM, Dhert WJA, Bredenoord AL. Reconsidering the ethics of sham interventions in an era of emerging technologies. *Surgery* 2015-04-01. 157(4): P801-810. DOI: 10.1016/j.surg.2014.12.001. Available in html format or pdf format.

Newell DJ. Intention-to-Treat Analysis: Implications for Quantitative and Qualitative Research, *International Journal of Epidemiology* 1992-10-01; 21(5): 837-841. DOI: 10.1093/ije/21.5.837. Available in pdf format.

Homer, CS. Using the Zelen design in randomized controlled trials: debates and controversies. *Journal of Advanced Nursing* 2002-04-18; 38: 200-207. doi:10.1046/j.1365-2648.2002.02164.x.

Brainard, J., Wilsher, S.H., Salter, C. et al. Methodological review: quality of randomized controlled trials in health literacy. *BMC Health Serv Res* 16, 246 (2016). <https://doi.org/10.1186/s12913-016-1479-2>. Available in html format or pdf format.

Kypria K, Bowe SJ, Karlsson N, McCambridge J. Enrolment-latency in randomized behavior change trials: individual participant data meta-analysis showed association with attrition but not effect-size. doi: 10.1016/j.jclinepi.2019.09.019.

Harris AD, McGregor JC, Perencevich EN, Furuno JP, Zhu J, Peterson DE, Finkelstein J. The Use and Interpretation of Quasi-Experimental Studies in Medical Informatics, *Journal of the American Medical Informatics Association* 2006-01-01 13(1), 16-23. doi: 10.1197/jamia.M1749. Available in html format or pdf format.

## Module05

### Required reading

1. Chapter 6 (also re-read Chapter 5)

### Recommended reading

Mike Evans. Quality Improvement in Healthcare. YouTube, November 26, 2014. Available as a video (11 minutes).

Health Resources and Services Administration. Quality Improvement. Available in PDF format.

Anthony D. Harris, Jessina C. McGregor, Eli N. Perencevich, Jon P. Furuno, Jingkun Zhu, Dan E. Peterson, and Joseph Finkelstein. The Use and Interpretation of Quasi-Experimental Studies in Medical Informatics. *J Am Med Inform Assoc.* 2006 Jan-Feb; 13(1): 16–23. doi: 10.1197/jamia.M1749. Available in html format and PDF format.

Jones Bryan, Vaux Emma, Olsson-Brown Anna. How to get started in quality improvement *BMJ* 2019; 364:k5408. Available in html format or PDF format.

Rohrbasser A, Harris J, Mickan S, Tal K, Wong G. Quality circles for quality improvement in primary health care: Their origins, spread, effectiveness and lacunae- A scoping review. *PLoS One.* 2018;13(12):e0202616. Published 2018 Dec 17. doi:10.1371/journal.pone.0202616. Available in html format or PDF format.

Centers for Disease Control and Prevention. How to write SMART objectives. Available in PDF format.

American Society for Quality. Quality Glossary. Available in html format.

Brent C. James and Lucy A. Savitz. How Intermountain Trimmed Health Care Costs Through Robust Quality Improvement Efforts. *Health Affairs* 2011. 30(6). DOI: 10.1377/hlthaff.2011.0358. Available in html format.

M Best, D Neuhauser. W Edwards Deming: father of quality management, patient and composer. *BMJ Quality & Safety* 2005; 14: 310-312. Available in html format and PDF format.

Diaz M, Neuhauser D. Pasteur and parachutes: when statistical process control is better than a randomized controlled trial. *BMJ Quality & Safety* 2005;14:140-143. Available in html format.

David leonhardt. Making Health Care Better. *New York Times Magazine* 2009 (November 3). Available in html format.

Lilford RJ, Brown CA, Nicholl J. Use of process measures to monitor the quality of clinical practice. *BMJ.* 2007;335(7621):648-50. Available in html format or PDF format.

McQuillan RF, Silver SA, Harel Z, et al. How to Measure and Interpret Quality Improvement Data. *Clin J Am Soc Nephrol.* 2016;11(5):908-914. doi:10.2215/CJN.1151101. Available in html format or pdf format.

## **Module06**

### **Required reading**

Chapters 7

### **Recommended reading**

Simon SD. Census Bureau (U.S.). to appear in *The Encyclopedia of Big Data*. Schintler LA, McNeely CL (eds.). Available on the Canvas website (please do not share beyond this class).

Simon SD. Census Bureau (U.S.). to appear in *The Encyclopedia of Big Data*. Schintler LA, McNeely CL (eds.). Available on the Canvas website (please do not share beyond this class).

Gail MH. Statistics in Action. *Journal of the American Statistical Association* 1996: 91(433); 1-13. Available on the Canvas website.

Hill AB. The Environment and Disease: Association or Causation? *Proceedings of the Royal Society of Medicine* 1964 (May); 58(5): 295-300. Available in PDF format.

Michaels D, Monforton C. Manufacturing Uncertainty: Contested Science and the Protection of the Public's Health and Environment. *American Journal of Public Health* 2005 (July 1); 95(S1): S39-S48. DOI: 10.2105/AJPH.2004.043059. PMID: 16030337. Available in html format or PDF format.

Monto AS. The Disappearance of Reye's Syndrome - A Public Health Triumph. *New England Journal of Medicine* 1999; 340:1423-1424. DOI: 10.1056/NEJM199905063401809. Available in html format or PDF format.

Prasad V, Jorgenson J, Ioannidis JPA, Cifu A. Observational studies often make clinical practice recommendations: an empirical evaluation of authors' attitudes. *Journal of Clinical Epidemiology* 2013 (April); 66(4): 361-366. DOI: 10.1016/j.jclinepi.2012.11.005. Available in PDF format.

Schwartz DH. Not all scientific studies are created equal. YouTube 2014 (April 24). Available in streaming video format.

Kaplan B, Giesbrecht G, Shannon S, McLeod K. Evaluating treatments in health care: The instability of a one-legged stool. *BMC Medical Research Methodology*. 2011; 11(1): 65. Available in html format or PDF format.

Glasziou P, Chalmers I, Rawlins M, McCulloch P. When are randomised trials unnecessary? Picking signal from noise. *BMJ* 2007; 334(7589): 349-351. DOI: 10.1136/bmj.39070.527986.68. Available in html format or PDF format.

Black N. Why we need observational studies to evaluate the effectiveness of health care. *BMJ* 1996; 312(7040): 1215 -1218. Available in PDF format.

Simon S. StATS: How two bad control groups can add up to one good comparison. P.Mean website 2007 (June 28). Available in html format.

Fillmore KM, Stockwell T, Chikritzhs T, Bostrom A, Kerr W. Moderate Alcohol Use and Reduced Mortality Risk: Systematic Error in Prospective Studies and New Hypotheses. *Annals of Epidemiology* 2007; 17(5): S16-S23, ISSN 1047-2797. Available in html format or PDF format.

Johns Hopkins University. Jerome Cornfield. Available in html format.

Breslow NE. Statistics in Epidemiology: The Case-Control Study. *Journal of the American Statistical Association* 1996; 91(433): 14-28. Available on the Canvas website.

Cheng HG, Phillips MR. Secondary analysis of existing data: opportunities and implementation. *Shanghai Arch Psychiatry*. 2014;26(6):371-5. Available in html format or PDF format.

Fedak KM, Bernal A, Capshaw ZA, Gross S. Applying the Bradford Hill criteria in the 21st century: how data integration has changed causal inference in molecular epidemiology. *Emerg Themes Epidemiol*. 2015;12:14. Published 2015 Sep 30. doi:10.1186/s12982-015-0037-4. Available in html format or PDF format.

Craig P, Cooper C, Gunnell D, et al. Using natural experiments to evaluate population health interventions: new Medical Research Council guidance. *J Epidemiol Community Health*. 2012;66(12):1182-6. Available in html format or PDF format.

Pietkiewicz, Igor, and Jonathan A. Smith. "A practical guide to using interpretative phenomenological analysis in qualitative research psychology." *Psychological Journal* 20.1 (2014): 7-14. Available on the Canvas website.

Noble H, Mitchell G. What is grounded theory? *Evidence-Based Nursing* 2016;19:34-35. Available in html format or PDF format.

Genzuck M. A Synthesis of Ethnographic Research. Occasional Paper Series. Center for Multilingual, Multicultural Research. Available on the Canvas website.

Cochran PA, Marshall CA, Garcia-Downing C, et al. Indigenous ways of knowing: implications for participatory research and community. *Am J Public Health*. 2008;98(1):22-7. Available in html format or PDF format.

Albine Moser & Irene Korstjens (2017) Series: Practical guidance to qualitative research. *European Journal of General Practice*.

- Part 1: Introduction, 23:1, 271-273, DOI: 10.1080/13814788.2017.1375093. Available in html format.
- Part 2: Context, research questions and designs, 23:1, 274-279, DOI: 10.1080/13814788.2017.1375090. Available in html format.
- Part 3: Sampling, data collection and analysis, 24:1, 9-18, DOI: 10.1080/13814788.2017.1375091. Available in html format.

- Part 4: Trustworthiness and publishing. 24:1, 120-124, DOI: 10.1080/13814788.2017.1375092. Available in html format.

Johnston MP. Secondary Data Analysis: A Method of which the Time Has Come. *Qualitative and Quantitative Methods in Libraries*, 2017-05; 3(3): 619-626. Available in html format.

Cristancho SM, Goldszmidt M, Lingard L, Watling C. Qualitative research essentials for medical education. *Singapore Med J*. 2018;59(12):622-627. doi:10.11622/smedj.2018093. Available in html format or pdf format.

Cheng HG, Phillips MR. Secondary analysis of existing data: opportunities and implementation. *Shanghai Arch Psychiatry*. 2014;26(6):371-375. doi:10.11919/j.issn.1002-0829.214171. Available in html format or pdf format.

Sutton J, Austin Z. Qualitative Research: Data Collection, Analysis, and Management. *Can J Hosp Pharm*. 2015;68(3):226-231. doi:10.4212/cjhp.v68i3.145. Available in html format or pdf format.

## Module07

### Required reading

School of Graduate Studies. UMKC Guide to Formatting Theses and Dissertations. October 2010. Available in PDF format.

No other readings this week.

## Module08

### Required reading

1. Chapter 10

### Recommended reading

Wainer H, Palmer S, Bradlow ET. A Selection of Selection Anomalies. *Chance Magazine* 1998: 11(2); 3-7.

Palinkas LA, Horwitz SM, Green CA, Wisdom JP, Duan N, Hoagwood K. Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Adm Policy Ment Health*. 2015;42(5):533-44. Available in html format and PDF format.

van Hoeven LR, Janssen MP, Roes KC, Koffijberg H. Aiming for a representative sample: Simulating random versus purposive strategies for hospital selection. *BMC Med Res Methodol*. 2015;15:90. Published 2015 Oct 23. doi:10.1186/s12874-015-0089-8. Available in html format or PDF format.

Christopher Zoukis. Selection Bias Influences Prison Education Research. *PrisonEducation.com*, August 13, 2015. Available in html format.

Wheelock A, Miraldo M, Parand A, Vincent C, Sevdalis N. Journey to vaccination: a protocol for a multinational qualitative study. *BMJ Open*. 2014;4(1):e004279. Published 2014 Jan 30. doi:10.1136/bmjopen-2013-004279. Available in html format or PDF format.

Guignard R, Wilquin JL, Richard JB, Beck F. Tobacco smoking surveillance: is quota sampling an efficient tool for monitoring national trends? A comparison with a random cross-sectional survey. *PLoS One*. 2013;8(10):e78372. Published 2013 Oct 23. doi:10.1371/journal.pone.0078372. Available in html format or PDF format.

Morrow KM, Vargas S, Rosen RK, et al. The utility of non-proportional quota sampling for recruiting at-risk women for microbicide research. *AIDS Behav*. 2007;11(4):586-95. Available in html format or PDF format.

Sadler GR, Lee HC, Lim RS, Fullerton J. Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nurs Health Sci*. 2010;12(3):369-74. Available in html format or PDF format.

Prasad V, Grady C. The misguided ethics of crossover trials. *Contemp Clin Trials*. 2013;37(2):167-9. Available in html format or PDF format.

## **Module09**

### **Required reading**

Gliner, Morgan, and Leech, Chapters 11, 12

### **Recommended reading**

Deshpande PR, Rajan S, Sudeepthi BL, Abdul Nazir CP. Patient-reported outcomes: A new era in clinical research. *Perspect Clin Res*. 2011;2(4):137-44. Available in html format.

McKenna SP. Measuring patient-reported outcomes: moving beyond misplaced common sense to hard science. *BMC Med*. 2011;9:86. Published 2011 Jul 14. doi:10.1186/1741-7015-9-86. Available in html format or PDF format.

U.S. Food and Drug Administration. Patient-Reported Outcome Measures: Use in Medical Product Development to Support Labeling Claims (final). Available in PDF format.

Changing Minds. Types of Reliability. Available in html format.

Paul C. Price, Rajiv Jhangiani, & I-Chant A. Chiang. Understanding Psychological Measurement. Chapter 5 in an open source textbook, *Research Methods in Psychology*. Available in html format.

Padilla JL, Benítez I. Validity evidence based on response processes. *Psicothema*. 2014;26(1):136-44. doi:10.7334/psicothema2013.259. Available in PDF format.

Taherdoost H. Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research (August 10, 2016). Available in pdf format.

Chapter 5. Reliability and Validity of Measurement. in Price PC, Jhangiani R, Chiang IA. *Research Methods in Psychology*. Available in html format.

Cypress BS. Rigor or Reliability and Validity in Qualitative Research, *Dimensions of Critical Care Nursing*: July/August 2017 - Volume 36 - Issue 4 - p 253-263 doi: 10.1097/DCC.0000000000000253. Available in html format.

Heale R, Twycross Alison. Validity and reliability in quantitative studies. *Evid Based Nurs*. 2015;18(3):66-67. doi:10.1136/eb-2015-10212. Available in html format or pdf format.

## **Module10**

### **Required reading**

Gliner, Morgan, and Leech, Chapter 13

### **Recommended reading**

Bishop PA, Herron RL. Use and Misuse of the Likert Item Responses and Other Ordinal Measures. *Int J Exerc Sci*. 2015;8(3):297–302. Published 2015 Jul 1. Available in html format or pdf format.

Dearnley C. A reflection on the use of semi-structured interviews. *Nurse Researcher* 2005: 13(1); 19-28. This article is behind a paywall and can be downloaded from the Canvas website.

Desselle SP. Construction, Implementation, and Analysis of Summated Rating Attitude Scales. *American Journal of Pharmaceutical Education* 2005;69(5). Available in html format or pdf format.

Diaz A, Peake K, Nucci-Sack A, Shankar V. Comparison of Modes of Administration of Screens to Identify a History of Childhood Physical Abuse in an Adolescent and Young Adult Population. *Ann Glob Health*. 2017;83(5-6):726–734. doi:10.1016/j.aogh.2017.10.023. Available in html format or pdf format.

Harrison C. Questionnaire Design Tip Sheet. Harvard University Program on Survey Research. Available in pdf format.

Jamshed S. Qualitative research method-interviewing and observation. *J Basic Clin Pharm.* 2014;5(4):87–88. doi:10.4103/0976-0105.141942. Available in html format or pdf format.

Kallio H, Pietilä AM, Johnson M, Kangasniemi M. Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *J Adv Nurs.* 2016 Dec; 72(12): 2954-2965. doi: 10.1111/jan.13031. This article is behind a paywall and can be downloaded from the Canvas website.

McLeod S. The Interview Method. Simply Psychology, 2014. Available in html format or pdf format.

O’Cathain AO, Thomas KJ. “Any other comments?” Open questions on questionnaires – a bane or a bonus to research? *BMC Medical Research Methodology* 2004; 4:25. DOI: 10.1186/1471-2288-4-25. Available in html format or pdf format.

Ochieng NT, Wilson K, Derrick CJ, Mukherjee N. The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods Ecol Evol.* 2018; 9: 20– 32. doi: 10.1111/2041-210X.12860. Available in html format or pdf format.

Pew Research Center. Questionnaire Design. Available in html format.

Tausch AP, Menold N. Methodological Aspects of Focus Groups in Health Research: Results of Qualitative Interviews With Focus Group Moderators. *Glob Qual Nurs Res.* 2016;3:2333393616630466. Published 2016 Mar 14. doi:10.1177/2333393616630466. Available in html format or pdf format.

Vanderbilt University. REDCap Videos. Available in html format but note that the individual links are to mp4 video files.

WikiHow. How to Run a Focus Group. Available in html format.

Whiting LS. *Nursing Standard* 2008; 22(23); 35-40. This article is behind a paywall and can be downloaded from the Canvas website.

YouTube. Leading Questions- Yes Prime Minister. Taken from the 1st Season of Yes Prime Minister – Episode 2, The Ministerial Broadcast. 2:16 running time. Published on Jan 15, 2012. Available in video format

## Module11

### Required reading

Chapters 16, 17

### Recommended reading

Jonathan Borwein and David H. Bailey. The Reinhart-Rogoff error – or how not to Excel at economics. *The Conversation*, April 22, 2013. Available in html format (Links to an external site.).

Kristin Briney. Data dictionaries. *Data Ab Initio* blog, August 5, 2014. Available in html format (Links to an external site.).

Karl Broman. Organizing data in spreadsheets. Available in html format (Links to an external site.).

Charlie Custer C. 9 Reasons Excel Users Should Consider Learning Programming. *Dataquest* blog, December 27, 2018. Available in html format (Links to an external site.).

Paul A.Harris, Robert Taylor, Robert Thielke, Jonathon Payne, Nathaniel Gonzalez, Jose G.Conde. Research electronic data capture (REDCap)—A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics* 2009; 42(2): 377-381. Available in html format (Links to an external site.) or PDF format (Links to an external site.).

Steve Simon. What should go into a data codebook. *PMean* blog, May 31, 2004. Available in html format (Links to an external site.).



Steve Simon. Coding race/ethnicity. StATS website, February 3, 2003. Available in html format (Links to an external site.).

Steve Simon. Date calculations in SPSS. StATS website, August 18, 1999. Available in html format (Links to an external site.)

The Straight Dope. Why do we have leap years? Available in html format (Links to an external site.)

Wilkinson MD et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci. Data 3:160018 doi: 10.1038/sdata.2016.18 (2016). Available at in html format (Links to an external site.) or PDF format (Links to an external site.).

Wilson G, Bryan J, Cranston K, Kitzes J, Nederbragt L, Teal TK (2017) Good enough practices in scientific computing. PLoS Comput Biol 13(6): e1005510. Available at in html format (Links to an external site.) or PDF format (Links to an external site.).

## **Module13**

### **Required reading**

Chapters 18 - 22

### **Recommended reading**

To be added

## **Module14**

### **Required reading**

1. Canvas – L.G. Portney & M.P. Watkins. Chapter 32 “Writing a research proposal.” Foundations of Clinical Research: Applications to Practice, 3rd ed. Upper Saddle River, New Jersey: Pearson Prentice Hall.
2. Chapter 26
3. Grading rubrics for the oral presentation and written research proposal.

### **Optional reading**

Cummings, S.R. & Hulley, S.B. (2007). Chapter 19, “Writing and funding a research proposal.” In S.B. Hulley, S.R. Cummings, W.S. Browner, D. Grady, & T.B. Newman (eds), Designing Clinical Research, 3rd edition. Philadelphia: Lippincott Williams & Wilkins.

L.G. Portney & M.P. Watkins. Chapter 33 “Reporting the results of clinical research.” Foundations of Clinical Research: Applications to Practice, 3rd ed. Upper Saddle River, New Jersey: Pearson Prentice Hall.

Herring A. Tips for Writing a Statistical Analysis Plan. Amstat News 2013 (April 1). Available in html format.

## **Module15**

### **Required reading**

1. Chapters 23, 24, 25

### **Optional reading**

Ioannidis. “Contradicted and initially stronger effects in highly cited clinical research”

## **Module16**

### **Required reading**

None.