

Review:

16.2

16.8

16.12

Discussion of the difference between practical significance and statistical significance.

Summary: If a result is not statistically significant, then we think it is quite possible it happened by chance. So it is not reasonable to make practical decisions which assume it is significant evidence. If a result IS statistically significant, then we must also consider whether it is large enough to be of practical significance. Whether it is large enough to be of practical significance is NOT a statistics question!!!)

Discussion of the difficulties of interpreting the results of multiple analyses.

Summary: If we do essentially a “fishing expedition” where we do test many hypotheses simultaneously, just “fishing” to see if any results pop up as significant, then it is not reasonable to immediately treat the ones that do pop up as important. Instead, we decide that those particular hypotheses are worthy of further investigation to see whether they are significant when we are specifically testing them.

16.11

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In this review, notice that 16.2b required us to review the information from Chapter 11.

Notice that 16.2a required us to review the information from Chapter 14 and 16.2c required us to recall how to design studies from Chs. 8 and 9.

Notice that 16.8 required us to review the information from Chapter 15.

**We are now getting to the part of the course where all the topics “come together” to help us answer real statistical questions in some depth. Discussion of the meaning what we have learned becomes even more important.**

As you read the textbook, notice that they have shifted from using Table A, the Normal Table to using Table C, the t-table. Notice that there is ONE line of Table C which summarizes the crucial information we need from the Normal Table. That is the line which is the third from the bottom, labeled  $z^*$ . On Test 3 you may use EITHER Table A or Table C. But starting with Chapter 18, it is necessary to understand Table C.

**Quiz 8: Due Wed. Mar. 20** at the beginning of class: 15.38 (just the p-values and conclusions), 15.40 (all four steps), 16.6, 16.9 (the main point is the three pictures), 16.12

**Quiz 9: Due Wed. Mar. 27** at the beginning of class: 17.74, 17.80, 18.18, 18.32, 18.34