

## SCHOOL OF COMMUNICATION

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CMNS 260-3

Fall 2006  
Burnaby Campus Day  
<http://www.sfu.ca/~richards/Zen/Pages/answers.html>

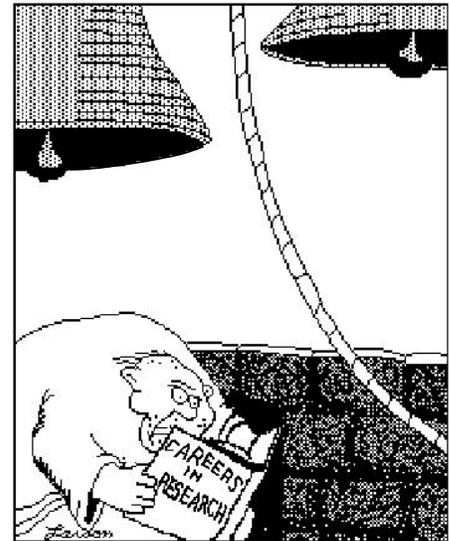
### Introduction to Empirical Methods for Communication Research

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Research begins with a question. How many of these are also those? Why do so many of those end up in these circumstances? How often does this happen? This course is about research — the process of asking questions about the world around you, and getting answers to those questions. In particular, it is about empirical research — research in which the questions are about things that exist or happen, questions about people or events or circumstances in the world that do or do not happen — and in which the answers are obtained by somehow observing things in the world.

#### Week Topic

1. Scientific vs. non-scientific enquiry. Paradigms, theory, explanation, research. Conceptualizing: concepts & variables. Ch 1, 2, pp 171-172
2. Research questions. Operationalizing research. Measurement. Four kinds of numbers. Categorical vs. continuous. Levels of scaling. Ch 3, pp 175-180. Validity and reliability. Ch 4.
3. Sampling: non-probability and probability sampling. Ch 5, pp 173-175. Univariate descriptive statistics. Central tendency: mode, median, mean. Dispersion: range, IQR. Variance, standard deviation. The computational method. Z-score. Ch 6.
4. Distributions. The normal distribution, areas under the normal curve. Ch 7. The normal curve and sampling distributions, standard errors. Ch 8.
5. Inferential statistics, standard error of the mean, Ch 9. Confidence intervals, S-test of a single mean. Ch 10.
6. Bivariate descriptive statistics: cross-tabulation. Ch 11. Thursday – Mid-term exam #1.
7. Continuous relationships: covariance, correlation, regression. Ch 13, 14.
8. Inferential statistics: statistical significance -- sampling variability ... or not? The null hypothesis. Testing the null hypothesis. Chi-squared. Ch 15, 16.
9. Z-test for difference between means. Ch 17.
10. Measures of association, Spearman's rho. Ch 12, pp 93-94, 102-104. Thursday – Mid-term exam #2.
11. Tests for correlations -- significance of Pearson's r, difference between two r's. Ch 18. t-test for difference between means. Ch 19.
12. ANOVA. Ch 19. Experiments. Ch 20.
13. Survey research. Ch 21.



#### Grading:

1. Mid-Term exam #1:	week 6	12%
2. Mid-Term exam #2:	week 10	20%
3. Final exam:	final exam period	30%
4. Assignments		18%
5. Ten in-class quizzes	random	10%
6. Tutorial attendance and participation		10%

#### Required Text:

William D. Richards, *The Zen of Empirical Research*. Vancouver: Empirical Press, 2002.

#### Cell phones:

No cell phones permitted in lectures or exams.  
*Please, oh please, turn them off!*

The School expects that the grades awarded in this course will bear some reasonable relation to established university-wide practices with respect to both levels and distribution of grades. In addition, the School will follow Policy T10.02 with respect to "Intellectual Honesty" and "Academic Discipline" (see the current Calendar, General Regulations section).