

### Experience Rating:

0 = No experience with this topic

1 = I know a little about this topic (could write a page)

2 = I know a moderate amount about this topic (could write a few pages)

3 = I know a lot about this topic (could write half a chapter or more)

The percentages represent the percentage of students responding “2” or “3” --- that is the percentage of students who could write more than a little about a topic.

### Background & Critical Tools

Pre   Post

20%	93%	Data Analysis using R
13%	100%	Binomial, Multinomial Distributions
67%	87%	Statistical Inference (e.g., Wald vs. Likelihood ratio)
47%	100%	Definitions (e.g., risk vs. odds, marginal vs. conditional probability)
13%	93%	Generalized Linear Model (e.g., random, systematic, link components)

### Primary Material

Pre   Post

47%	93%	Logistic Regression (when to use, relation to generalized linear model)
33%	100%	Logistic Regression (interpretation of results)
7%	100%	Logistic Regression (model fit, effects of sparse data, power)
0%	93%	Logit models for Nominal Responses (baseline category logits)
0%	93%	Cumulative Logit model for Ordinal Responses
0%	93%	Adjacent-Category, Continuation Ratio Models for Ordinal Responses
0%	87%	Loglinear Models
0%	73%	Differences/Similarities of Loglinear Models and Logistic Regression
0%	40%	Models for a match pair of questions
7%	53%	Generalized Linear Mixed Models

### Extra Material

Pre   Post

7%	80%	Poisson, Negative Binomial Distributions
53%	80%	Chi-square test for independence
33%	47%	Extensions (Item Response Theory, Categorical Data Analysis with SEM, etc)

Total Sample at Pre & Post: 15