

IDS 702: MODULE 3.4

MULTINOMIAL LOGISTIC REGRESSION (ILLUSTRATION)

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ANALYSIS OF SESAME STREET DATA

- The television series Sesame Street is concerned mainly with teaching preschool skills to children age 3-5, with special emphasis on reaching economically disadvantaged children.
- In the early 1970s, researchers at Educational Testing Service (the company that runs the SAT) ran a study to evaluate Sesame Street.
- To ensure the study contained a group of children that watched Sesame Street regularly, they randomly assigned children either to receive encouragement to watch Sesame Street or not to receive encouragement.
- Those assigned to encouragement were given promotional materials, and received weekly visits and phone calls from ETS staff. Those assigned not to receive encouragement did not get this attention.
- The children were tested on a variety of cognitive variables, including knowledge of body parts, knowledge about letters, knowledge about numbers, etc., both before and after viewing the series.
- Let's predict how often the kids watch sesame street, with focus on whether encouragement pushes them towards more viewing.

ANALYSIS OF SESAME STREET DATA

The data is in the file `sesame.txt` on Sakai.

Variable	Description
viewcat	1=rarely watched the show 2=once or twice a week 3=three to five times a week 4=watched the show on average more than 5 times a week
viewenc	1=child encouraged to watch, 2=child not encouraged to watch
site	1 =Three to five year old disadvantaged children from inner city areas in various parts of the country. 2 = Four year old advantaged suburban children. 3 = Advantaged rural children. 4 = Disadvantaged rural children. 5 = Disadvantaged Spanish speaking children.
sex	male=1, female=2
age	age in months
setting	setting in which Sesame Street was viewed, 1=home 2=school
prebody	pretest on knowledge of body parts (scores range from 0-32)
prelet	pretest on letters (scores range from 0-58)
preform	pretest on forms (scores range from 0-20)
prenumb	pretest on numbers (scores range from 0-54)
prerelat	pretest on relational terms (scores range from 0-17)
preclasf	pretest on classification skills

IN-CLASS ANALYSIS: MOVE TO THE R
SCRIPT HERE

WHAT'S NEXT?

MOVE ON TO THE READINGS FOR THE NEXT MODULE!