

TITLE: this is an example of a two-level regression analysis for a
continuous dependent variable with a random slope and an observed
covariate

DATA: FILE = ex9.2a.dat;

VARIABLE: NAMES = y x w xm clus;

 USEVARIABLE = y x w;

 WITHIN = x;

 BETWEEN = w;

 CLUSTER = clus;

DEFINE: CENTER x (GRANDMEAN);

ANALYSIS: TYPE = TWOLEVEL RANDOM;

MODEL:

 %WITHIN%

 s | y ON x;

 %BETWEEN%

 y ON w;

 [s] (a);

 s ON w (b);

 y WITH s;

MODEL CONSTRAINT:

 PLOT(crosslvl);

 LOOP(mod, -2, 2, 0.1);

 ! mod plays the role of w, moderating the effect of x on y

 crosslvl = a+b*mod; ! cross-level effect

PLOT:

 TYPE=PLOT2;