



Calibration and scoring with the generalized partial credit rating-scale model: collapsing of categories

This example scores and calibrates the data, assuming the partial credit model with standard scoring function. The command file is shown below.

To illustrate the situation where two types of items are involved, the four categories for the second ten items are collapsed into two categories, thus making those items effectively binary. Two blocks are required (each with ten items), and the MODIFIED list in the BLOCK2 command specifies the collapsing.

The standard score function assumes 4 is the highest category, so no response modification is required in BLOCK1. In BLOCK2, the scoring function is used to specify scoring function values. CADJUST is not used with the partial credit model, nor is SCALE in the CALIB command. Because the data are now less informative, the number of quadrature points for calibration can be reduced (NQPT=15 instead of the 30 previously used).

Despite the different model and the partition of the items into two blocks, the estimated trait scores in **exampl03.sco** agree well with the estimates from the first two examples (see exampl01.zip and exampl02.zip) after rescaling in the sample.

```
EXAMPL03.PSL - ARTIFICIAL EXAMPLE (MONTE CARLO DATA)
              GENERALIZED PARTIAL CREDIT MODEL - EAP SCALE SCORES
>FILES      DFNAME='EXAMPL01.DAT', SAVE;
>SAVE       SCORE='EXAMPL03.SCO';
>INPUT      NIDCHAR=4, NTOTAL=20, NTEST=1, LENGTH=20;
            (4A1,10X,20A1)
>TEST       TNAME='SCALE1', ITEM=(1(1)20), NBLOCK=2;
>BLOCK1     BNAME='SBLOCK1', NITEMS=10, NCAT=4, SCORING=(1,2,3,4);
>BLOCK2     BNAME='SBLOCK2', NITEMS=10, NCAT=4, MODIFIED=(1,1,2,2), SCORE=(1,2);
>CALIB      PARTIAL, LOGISTIC, NQPTS=15, CYCLE=(100,1,1,1,1), NEWTON=2,
            CRIT=0.01;
>SCORE      MLE, SMEAN=0.0, SSD=1.0, NAME='PCR_MLE', PFQ=5;
```