



ภาคผนวก

โปรแกรมคำสั่งในการเปรียบเทียบผลการเรียน

มหาวิทยาลัยราชภัฏมหาสารคาม
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1. วิธีการปรับเทียบผลการเรียนแบบปรับสเกลขั้นเดียว (OSC)

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*Program for One-Step Scaling Calibration (OSC)
*BY PAISARN WORAKHAM
GET
    FILE='D:\Equat_RE\data.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datam.sav'
    /BREAK=sch
    /monet mgpa=MEAN (onet gpa).
GET
    FILE='D:\Equat_RE\datam.sav'.
REGRESSION VARIABLES= mgpa monet
    /DEPENDENT=mgpa
    /METHOD=ENTER
    /SAVE PRED(predel).
SAVE OUTFILE='D:\Equat_RE\datan.sav'.
MATCH FILES TABLE='D:\Equat_RE\datan.sav'
    /FILE='D:\Equat_RE\data.sav'
    /BY sch
    /KEEP sch onet gpa monet mgpa predel.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
COMPUTE del=gpa-mgpa.
COMPUTE ngpa=del+predel.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
    /BREAK=mark
    /max=MAX (ngpa)
    /min=MIN (ngpa).
GET
    FILE='D:\Equat_RE\datap.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
    /FILE='D:\Equat_RE\datap.sav'
    /BY mark
    /KEEP sch onet gpa monet mgpa predel ngpa max min.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
GET
    FILE='D:\Equat_RE\main4.sav'.
COMPUTE agpa=((ngpa-min)*3/(max-min))+1.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
GET
    FILE='D:\Equat_RE\main4.sav'.
REGRESSION VARIABLES= gpa onet
    /DEPENDENT=gpa
    /METHOD=ENTER
    /SAVE PRED(crit).
SAVE OUTFILE='D:\Equat_RE\main4.sav'.

```

```

COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
  /BREAK=mark
  /cmax=MAX (crit)
  /cmin=MIN (crit).
GET
  FILE='D:\Equat_RE\datat.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
/FILE='D:\Equat_RE\main4.sav'
  /BY mark
  /KEEP sch onet gpa predel ngpa agpa max min crit cmax
  cmin.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
GET
  FILE='D:\Equat_RE\main4.sav'.
COMPUTE cgpa=((crit-cmin)*3/(cmax-cmin))+1.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.
GET
  FILE='D:\Equat_RE\main4.sav'.
COMPUTE diff=agpa-cgpa.
SAVE OUTFILE='D:\Equat_RE\main4.sav'.

```

2. วิธีการปรับเทียบผลการเรียนแบบปรับสเกลสองขั้น (TSC)

*Program for Two-Step Scaling Grade Calibration(TSC)

*BY PAISARN WORAKHAM

```

GET
  FILE='D:\Equat_RE\data.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datam.sav'
  /BREAK=sch
  /monet mgpa=MEAN (onet gpa).
GET
  FILE='D:\Equat_RE\datam.sav'.
REGRESSION VARIABLES= mgpa monet
  /DEPENDENT=mgpa
  /METHOD=ENTER
  /SAVE PRED(spre_1).
SAVE OUTFILE='D:\Equat_RE\datan.sav'.
GET
  FILE='D:\Equat_RE\data.sav'.
MATCH FILES TABLE='D:\Equat_RE\datan.sav'
/FILE='D:\Equat_RE\data.sav'
  /BY sch
  /KEEP sch onet gpa monet mgpa spre_1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
COMPUTE del=gpa-mgpa.

```

```

        COMPUTE donet=onet-monet.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
SORT CASES BY sch.
SPLIT FILE BY sch.
        REGRESSION VARIABLES= del donet
                /DEPENDENT=del
                /METHOD=ENTER
                /SAVE PRED(predel).
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
DO IF (SYSMIS(predel)).
        COMPUTE predel=del.
END IF.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
COMPUTE ngpa=predel+spre_1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
GET
        FILE='D:\Equat_RE\datap.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
        /BREAK=mark
        /max=MAX (ngpa)
        /min=MIN (ngpa).
GET
        FILE='D:\Equat_RE\datap.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
        /FILE='D:\Equat_RE\datap.sav'
        /BY mark
        /KEEP sch onet gpa monet mgpa predel spre_1 ngpa max
min.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
GET
        FILE='D:\Equat_RE\main5.sav'.
COMPUTE agpa=((ngpa-min)*3/(max-min))+1.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
GET
        FILE='D:\Equat_RE\main5.sav'.
REGRESSION VARIABLES= gpa onet
                /DEPENDENT=gpa
                /METHOD=ENTER
                /SAVE PRED(crit).
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
        /BREAK=mark
        /cmax=MAX (crit)
        /cmin=MIN (crit).

```

```

GET
    FILE='D:\Equat_RE\datat.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
/FILE='D:\Equat_RE\main5.sav'
    /BY mark
    /KEEP sch onet gpa monet mgpa predel spre_1 ngpa agpa
max min crit cmax cmin.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
GET
    FILE='D:\Equat_RE\main5.sav'.
COMPUTE cgpa=((crit-cmin)*3/(cmax-cmin))+1.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.
GET
    FILE='D:\Equat_RE\main5.sav'.
COMPUTE diff=agpa-cgpa.
SAVE OUTFILE='D:\Equat_RE\main5.sav'.

```

3. วิธีการปรับเทียบผลการเรียนแบบเชื่อมโยงส่วนตัว (OLC)

```

*Program for One-Section Linking Grade Calibration(OLC)
*BY PIYATIDA PANYA
GET
    FILE='D:\Equat_RE\data.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datam.sav'
    /BREAK=sch
    /monet mgpa=MEAN (onet gpa).
GET
    FILE='D:\Equat_RE\datam.sav'.
REGRESSION VARIABLES= mgpa monet
    /DEPENDENT=mgpa
    /METHOD=ENTER
    /SAVE PRED(predel).
SAVE OUTFILE='D:\Equat_RE\datan.sav'.
MATCH FILES TABLE='D:\Equat_RE\datan.sav'
/FILE='D:\Equat_RE\data.sav'
    /BY sch
    /KEEP sch onet gpa monet mgpa predel.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
COMPUTE del=gpa-mgpa.
COMPUTE ngpa=del+predel.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
    /BREAK=mark
    /max=MAX (ngpa)
    /min=MIN (ngpa).

```

```

GET
    FILE='D:\Equat_RE\datap.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
/FILE='D:\Equat_RE\datap.sav'
    /BY mark
    /KEEP sch onet gpa monet mgpa predel ngpa max min.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
GET
    FILE='D:\Equat_RE\main1.sav'.
COMPUTE agpa=((ngpa-min)*3/(max-min))+1.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
GET
    FILE='D:\Equat_RE\main1.sav'.
REGRESSION VARIABLES= gpa onet
    /DEPENDENT=gpa
    /METHOD=ENTER
    /SAVE PRED(crit).
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
    /BREAK=mark
    /cmax=MAX (crit)
    /cmin=MIN (crit).
GET
    FILE='D:\Equat_RE\datat.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
/FILE='D:\Equat_RE\main1.sav'
    /BY mark
    /KEEP sch onet gpa predel ngpa agpa max min crit cmax
    cmin.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
GET
    FILE='D:\Equat_RE\main1.sav'.
COMPUTE cgpa=((crit-cmin)*3/(cmax-cmin))+1.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.
GET
    FILE='D:\Equat_RE\main1.sav'.
COMPUTE diff=agpa-cgpa.
SAVE OUTFILE='D:\Equat_RE\main1.sav'.

```

4. วิธีการปรับเทียบผลการเรียนแบบเชื่อมโยงเสริมกันทั้งสองส่วน (TALC)

*Program for Two-Section Additive Linking Grade Calibration(TALC)

*BY PIYATIDA PANYA

GET

FILE='D:\Equat_RE\data.sav'.

```

AGGREGATE OUTFILE='D:\Equat_RE\datam.sav'
  /BREAK=sch
  /monet mgpa=MEAN (onet gpa).
GET
  FILE='D:\Equat_RE\datam.sav'.
REGRESSION VARIABLES= mgpa monet
  /DEPENDENT=mgpa
  /METHOD=ENTER
  /SAVE PRED(spre_1).
SAVE OUTFILE='D:\Equat_RE\datan.sav'.
GET
  FILE='D:\Equat_RE\data.sav'.
MATCH FILES TABLE='D:\Equat_RE\datan.sav'
  /FILE='D:\Equat_RE\data.sav'
  /BY sch
  /KEEP sch onet gpa monet mgpa spre_1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
  COMPUTE del=gpa-mgpa.
  COMPUTE donet=onet-monet.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
SORT CASES BY sch.
SPLIT FILE BY sch.
  REGRESSION VARIABLES= del donet
    /DEPENDENT=del
    /METHOD=ENTER
    /SAVE PRED(predel).
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
DO IF (SYSMIS(predel)).
  COMPUTE predel=del.
END IF.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
COMPUTE ngpa=predel+spre_1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
GET
  FILE='D:\Equat_RE\datap.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
  /BREAK=mark
  /max=MAX (ngpa)
  /min=MIN (ngpa).
GET
  FILE='D:\Equat_RE\datap.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
  /FILE='D:\Equat_RE\datap.sav'
  /BY mark
  /KEEP sch onet gpa monet mgpa predel spre_1 ngpa max
min.

```

```

SAVE OUTFILE='D:\Equat_RE\main2.sav'.
GET
    FILE='D:\Equat_RE\main2.sav'.
COMPUTE agpa=((ngpa-min)*3/(max-min))+1.
SAVE OUTFILE='D:\Equat_RE\main2.sav'.
GET
    FILE='D:\Equat_RE\main2.sav'.
REGRESSION VARIABLES= gpa onet
    /DEPENDENT=gpa
    /METHOD=ENTER
    /SAVE PRED(crit).
SAVE OUTFILE='D:\Equat_RE\main2.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\main2.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
    /BREAK=mark
    /cmax=MAX (crit)
    /cmin=MIN (crit).
GET
    FILE='D:\Equat_RE\datat.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
    /FILE='D:\Equat_RE\main2.sav'
    /BY mark
    /KEEP sch onet gpa monet mgpa predel spre_1 ngpa agpa
max min crit cmax cmin.
SAVE OUTFILE='D:\Equat_RE\main2.sav'.
GET
    FILE='D:\Equat_RE\main2.sav'.
COMPUTE cgpa=((crit-cmin)*3/(cmax-cmin))+1.
SAVE OUTFILE='D:\Equat_RE\main2.sav'.
GET
    FILE='D:\Equat_RE\main2.sav'.
COMPUTE diff=agpa-cgpa.
SAVE OUTFILE='D:\Equat_RE\main2.sav'.

```

5. วิธีการปรับเทียบผลการเรียนแบบเชื่อมโยงร่วมกันทั้งสองส่วน (TILC)

*Program for Two-Section Interactive Linking Grade

Calibration(TILC)

*BY PIYATIDA PANYA

GET

```

    FILE='D:\Equat_RE\data.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datam.sav'
    /BREAK=sch
    /monet mgpa=MEAN (onet gpa).

```

GET

```

    FILE='D:\Equat_RE\datam.sav'.
REGRESSION VARIABLES= mgpa monet

```



```

COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\datap.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
  /BREAK=mark
  /max=MAX (ngpa)
  /min=MIN (ngpa).
GET
  FILE='D:\Equat_RE\datap.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
  /FILE='D:\Equat_RE\datap.sav'
  /BY mark
  /KEEP sch onet gpa monet mgpa tonet tgpa predel
spre_1 ngpa max min.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
GET
  FILE='D:\Equat_RE\main3.sav'.
COMPUTE agpa=((ngpa-min)*3/(max-min))+1.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
GET
  FILE='D:\Equat_RE\main3.sav'.
REGRESSION VARIABLES= gpa onet
  /DEPENDENT=gpa
  /METHOD=ENTER
  /SAVE PRED(crit).
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
COMPUTE mark=1.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
AGGREGATE OUTFILE='D:\Equat_RE\datat.sav'
  /BREAK=mark
  /cmax=MAX (crit)
  /cmin=MIN (crit).
GET
  FILE='D:\Equat_RE\datat.sav'.
MATCH FILES TABLE='D:\Equat_RE\datat.sav'
  /FILE='D:\Equat_RE\main3.sav'
  /BY mark
  /KEEP sch onet gpa predel spre_1 ngpa agpa max min
crit cmax cmin.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
GET
  FILE='D:\Equat_RE\main3.sav'.
COMPUTE cgpa=((crit-cmin)*3/(cmax-cmin))+1.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.
GET
  FILE='D:\Equat_RE\main3.sav'.
COMPUTE diff=agpa-cgpa.
SAVE OUTFILE='D:\Equat_RE\main3.sav'.

```