**SAS Syntax for G-theory Variance Component Estimates**

**/\* syntax to sort data by person in preparation for transposing\*/**

**proc sort data=**gtheory1**; by** person**; run;**

**/\* syntax to transpose data for one-facet design\*/**

**data** gtheory1T **(drop=** i rater1 rater2 rater3**); set** gtheory1**;**

**array** scores (3) rater1 rater2 rater3;

do **i = 1 to 3;**

**rater = i;**

**score = scores(i);**

**output;**

**end;**

**run;**

**/\* syntax for variance component estimates: one-facet design \*/**

**proc varcomp data=**gtheory1T**;**

**class** person rater **;**

**model** score = person|rater**;**

**run;**

**/\* syntax to transpose data for two-facet design \*/**

**data** gtheory2T **(keep=**person rater task score**); set** gtheory2**;**

**array** R1 (3) R1Task1 R1Task2 R1Task3**;**

**array** R2 (3) R2Task1 R2Task2 R2Task3**;**

**array** R3 (3) R3Task1 R3Task2 R3Task3**;**

**do** i = 1 to 3**;**

task= i;

rater=1;

score=R1(i);

**output;**

rater=2;

score = R2(i);

**output;**

rater=3;

score=R3(i);

**output;**

**end;**

**run;**

**/\* syntax for variance component estimates: two-facet design \*/**

**proc varcomp data**=gtheory2T;

**class** person rater task ;

**model** score = person|rater|task;

**run;**