# Supplementary Materials 2: Syntax for STATA 18 Statistical Analysis

# Calculating ICC2,1 and ICC2,k in Stata 18

## ICC2,1 Calculation

To calculate ICC2,1 (single measurement, absolute agreement) in Stata 18, we used the following syntax:  
 **icc hop\_distance participant time, absolute**

### Example Dataset +-----------------------------+ | participant time hop\_distance | |-----------------------------| 1. | 1 1 150 1 | 2. | 1 2 155 2 | 3. | 1 3 160 3 | 4. | 1 4 158 4 | +-----------------------------+

## ICC2,k Calculation

To calculate ICC2,k (average measurement, absolute agreement) in Stata 18, we used the following syntax:

**icc hop\_distance participant time, absolute k(3)**

### Example Dataset +-----------------------------+ | participant time hop\_distance | |-----------------------------| 1. | 1 1 150 1 | 2. | 1 2 155 2 | 3. | 1 3 160 3 | 4. | 1 4 158 4 | +-----------------------------+

### Calculating SEM, SDD in Stata 18

#### 1. Input Data

clear

input subject l1 l2 l3

1 10 12 11

2 15 14 16

3 20 19 21

4 25 26 24

5 30 28 29

6 35 34 36

7 40 39 41

8 45 46 44

9 50 48 49

10 55 54 56

end

#### 2. Calculate Differences and Means for Each Pair

gen diff12 = l1 - l2

gen mean\_measurement12 = (l1 + l2) / 2

gen diff13 = l1 - l3

gen mean\_measurement13 = (l1 + l3) / 2

gen diff23 = l2 - l3

gen mean\_measurement23 = (l2 + l3) / 2

#### 3. Calculate Mean and Standard Deviation of Differences for Each Pair

summarize diff12, meanonly

local mean\_diff12 = r(mean)

summarize diff12, detail

local sd\_diff12 = r(sd)

summarize diff13, meanonly

local mean\_diff13 = r(mean)

summarize diff13, detail

local sd\_diff13 = r(sd)

summarize diff23, meanonly

local mean\_diff23 = r(mean)

summarize diff23, detail

local sd\_diff23 = r(sd)

#### 4. Calculate SEM and SDD for Each Pair

local sem12 = `sd\_diff12' / sqrt(2)

local sem13 = `sd\_diff13' / sqrt(2)

local sem23 = `sd\_diff23' / sqrt(2)

local sdd12 = 1.96 \* sqrt(2) \* `sd\_diff12'

local sdd13 = 1.96 \* sqrt(2) \* `sd\_diff13'

local sdd23 = 1.96 \* sqrt(2) \* `sd\_diff23'

#### 5. Display Results in the Command Window

display "Pair of Measurements | SEM Value | SDD Value"

display "-------------------------------------------------------"

display "l1 and l2 | " %9.3f `sem12' " | " %9.3f `sdd12'

display "l1 and l3 | " %9.3f `sem13' " | " %9.3f `sdd13'

display "l2 and l3 | " %9.3f `sem23' " | " %9.3f `sdd23'