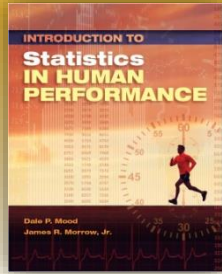


Chapter 10

One-Way Within Groups ANOVA

SPSS Example

SPSS Repeated Measures Example



Week 1

Week 2

Week 3

Week 4

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IV = Weeks of pedometer wearing
DV = Recorded steps

N = 30

SPSS Output

Descriptive Statistics

	Mean	Std. Deviation	N
Week1	44822.40	21110.386	30
Week2	53960.17	23288.415	30
Week3	54306.47	24686.934	30
Week4	54455.45	26483.671	30

Mauchly's Test of Sphericity

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Weeks	.005	148.670	5	.000	.385	.391	.333

SPSS Output

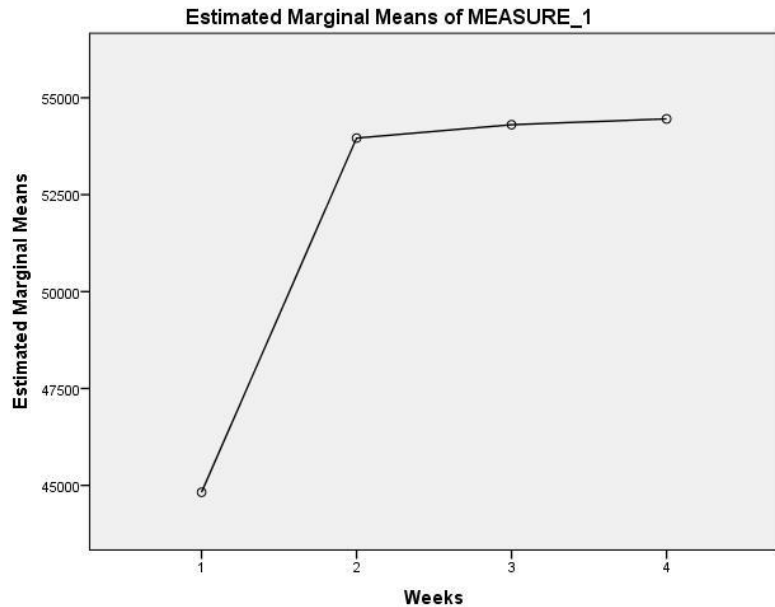
Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Weeks	Sphericity Assumed	1999720539	3	666573513.0	10.335	.000
	Greenhouse-Geisser	1999720539	1.155	1730741044	10.335	.002
	Huynh-Feldt	1999720539	1.173	1704755761	10.335	.002
	Lower-bound	1999720539	1.000	1999720539	10.335	.003
Error(Weeks)	Sphericity Assumed	5611089383	87	64495280.26		
	Greenhouse-Geisser	5611089383	33.507	167460342.4		
	Huynh-Feldt	5611089383	34.018	164946098.9		
	Lower-bound	5611089383	29.000	193485840.8		

SPSS Output

Plots → Put weeks in Horizontal Axis



Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Weeks	Type III Sum of Squares	df	Mean Square	F	Sig.
Weeks	Linear	1282944869	1	1282944869	10.565	.003
	Quadratic	605986513.8	1	605986513.8	9.735	.004
	Cubic	110789155.7	1	110789155.7	11.306	.002
Error(Weeks)	Linear	3521651772	29	121436268.0		
	Quadratic	1805271937	29	62250756.44		
	Cubic	284165673.9	29	9798816.340		