F tests – ANOVA: Repeated measures, within-between interaction

Analysis:	Post hoc: Compute achieved power			
Input:	Effect size f	=	0.167	# f=SQRT((F*$DFbetween$)/$DFwithin$)
	α err prob	=	0.05	# a priori
	Total sample size	=	120	# n of sessions
	Number of groups	=	2	# n of groups
	Number of measurements	=	3	# n of zones/stages
	Corr among rep measures	=	0.201509	# pearson r between stages
	Nonsphericity correction ϵ	=	1	# assumption met in ANOVA
Output:	Noncentrality parameter λ	=	12.5737673	
	Critical F	=	3.0340833	
	Numerator df	=	2.0000000	
	Denominator df	=	236	
	Power (1−β err prob)	=	0.8941075	

F tests – ANOVA: Repeated measures, within-between interaction

Analysis:	Post hoc: Compute achieved power		
Input:	Effect size f	=	0.16205
	α err prob	=	0.05
	Total sample size	=	120
	Number of groups	=	2
	Number of measurements	=	3
	Corr among rep measures	=	0.14969
	Nonsphericity correction ϵ	=	1
Output:	Noncentrality parameter λ	=	11.1179133
	Critical F	=	3.0340833
	Numerator df	=	2.0000000
	Denominator df	=	236
	Power (1−β err prob)	=	0.8518425

F tests – ANOVA: Repeated measures, within-between interaction

Analysis:	Post hoc: Compute achieved power		
Input:	Effect size f	=	0.156719
	α err prob	=	0.05
	Total sample size	=	120
	Number of groups	=	2
	Number of measurements	=	3
	Corr among rep measures	=	0.160941
	Nonsphericity correction ϵ	=	1
Output:	Noncentrality parameter λ	=	10.5378813
	Critical F	=	3.0340833
	Numerator df	=	2.0000000
	Denominator df	=	236
	Power (1−β err prob)	=	0.8313277

F tests − ANOVA: Repeated measures, within−between interaction

Analysis: Post hoc: Compute achieved power

Input:	Effect size f	=	0.070273
	α err prob	=	0.05
	Total sample size	=	120
	Number of groups	=	2
	Number of measurements	=	3
	Corr among rep measures	=	0.105043
	Nonsphericity correction ε	=	1
Output:	Noncentrality parameter λ	=	1.9864485
	Critical F	=	3.0340833
	Numerator df	=	2.0000000
	Denominator df	=	236
	Power (1−β err prob)	=	0.2218647

Note: Effect size f was calculated with the interaction term (leader*stage) F statistic and degrees of freedom for each outcome. In Trapping Time, the interaction term was not significant and thus the stage main effect is reported.