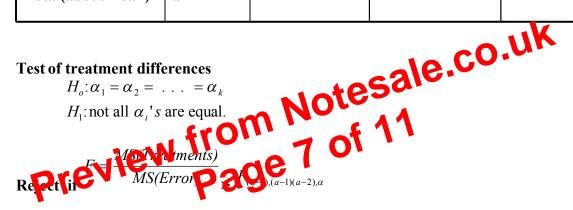
τ_k represents the effect of the kth treatment, is a random error term, assumed to be Normally distributed with mean zero and variance, .

ANOVA table

Source	d.f	SS	MS=SS/df	MS Ratio
Between Rows	a-1	SS(rows)	MS(rows)	MS(Rows)
				MS(Error)
Between Columns	a-1	SS(columns)	MS(columns)	MS(Columns)
				MS(Error)
Between	a-1	SS(treatments)	MS(treatments)	
Treatments				
Error	(a-1)(a-2)	SS(Error)	MS(Error)	
Total(about mean)	a^2-1			



We could also test the effectiveness of a Latin square design by testing for row and column differences.

Tests of Between-Subjects Effects

Dependent Variable: Producity of bank tellers

Source	Type III Sum of Squares	df	Mean Square	F	Sia.
Corrected Model	1115.6	12	92.97	1.77	.166
Intercept	9840.6	1	9840.6	188.1	.000
MUSIC	494.1	4	123.5	2.36	.112
WEEK	261.3	4	65.34	1.24	.342
DAY	360.1	4	90.04	1.72	.210
Error	627.6	12	52.30		
Total	11584.	25			
Corrected Total	1743.3	24			

a. R Squared = .640 (Adjusted R Squared = .280)