**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Chefs To see live shows by celebrity chefs

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.8933 0.00000 Yes

Anderson-Darling 22.6837 0.00000 Yes

D'Agostino Skewness 6.7653 0.00000 Yes

D'Agostino Kurtosis -6.1565 0.00000 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 83.6724 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.6135 0.43374 No

Levene (Data - Means) 0.9395 0.33274 No

Conover (Ranks of Deviations) 0.0730 0.78697 No

Bartlett (Likelihood Ratio) 0.7765 0.37821 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 1.017214 1.017214 0.0618 0.80369 No 0.05709

Within (Error) 678 11153.31 16.4503

Adjusted Total 679 11154.32

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 0.3036 0.58163 No

Corrected for Ties 1 0.3073 0.57932 No

Number Sets of Ties 14

Multiplicity Factor 3819498

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 100748.50 335.83 -0.5510 4

HWFF 380 130791.50 344.19 0.5510 5

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 0.1259 0.72271 No

Van der Waerden - Normal Quantiles 1 0.1331 0.71524 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 5.573529 5.568947

**A: Type**

CTGFWS 300 5.53 -0.03894737 4 4.164161 0.2341674

HWFF 380 5.607895 0.03894737 5 3.968403 0.2080632

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Relaxation To relax and enjoy different environment

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9039 0.00000 Yes

Anderson-Darling 21.7640 0.00000 Yes

D'Agostino Skewness 7.6539 0.00000 Yes

D'Agostino Kurtosis -2.5821 0.00982 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 65.2499 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.3369 0.56184 No

Levene (Data - Means) 0.5920 0.44191 No

Conover (Ranks of Deviations) 0.0108 0.91717 No

Bartlett (Likelihood Ratio) 0.1183 0.73093 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 4.76533 4.76533 0.3827 0.53636 No 0.09474

Within (Error) 678 8441.986 12.45131

Adjusted Total 679 8446.752

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 0.9734 0.32383 No

Corrected for Ties 1 0.9855 0.32083 No

Number Sets of Ties 14

Multiplicity Factor 3865554

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 99640.50 332.14 -0.9866 4

HWFF 380 131899.50 347.10 0.9866 4

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 1.6780 0.19519 No

Van der Waerden - Normal Quantiles 1 1.6777 0.19524 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 5.230882 5.220965

**A: Type**

CTGFWS 300 5.136667 -0.08429825 4 3.565628 0.2037262

HWFF 380 5.305263 0.08429825 4 3.499186 0.1810155

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Togetherness Spend time with family and friends

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9264 0.00000 Yes

Anderson-Darling 16.1303 0.00000 Yes

D'Agostino Skewness 6.8706 0.00000 Yes

D'Agostino Kurtosis -3.2838 0.00102 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 57.9886 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 2.5691 0.10944 Yes

Levene (Data - Means) 4.1486 0.04206 Yes

Conover (Ranks of Deviations) 6.9309 0.00847 Yes

Bartlett (Likelihood Ratio) 1.9843 0.15894 Yes

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 16.97934 16.97934 1.4515 0.22870 No 0.22534

Within (Error) 678 7930.968 11.69759

Adjusted Total 679 7947.947

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 0.9343 0.33376 No

Corrected for Ties 1 0.9456 0.33084 No

Number Sets of Ties 14

Multiplicity Factor 3774330

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 99691.50 332.31 -0.9666 4

HWFF 380 131848.50 346.97 0.9666 5

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 0.5922 0.44155 No

Van der Waerden - Normal Quantiles 1 0.6038 0.43713 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 5.391177 5.372456

**A: Type**

CTGFWS 300 5.213333 -0.1591228 4 3.270598 0.1974639

HWFF 380 5.531579 0.1591228 5 3.533713 0.1754512

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Tastewine Wine tasting

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.8953 0.00000 Yes

Anderson-Darling 22.9960 0.00000 Yes

D'Agostino Skewness 8.5290 0.00000 Yes

D'Agostino Kurtosis -0.2641 0.79171 No

D'Agostino Omnibus (Skewness and Kurtosis) 72.8135 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 14.0714 0.00019 Yes

Levene (Data - Means) 24.3163 0.00000 Yes

Conover (Ranks of Deviations) 33.2827 0.00000 Yes

Bartlett (Likelihood Ratio) 7.6418 0.00570 Yes

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 141.2955 141.2955 10.7533 0.00109 Yes 0.90568

Within (Error) 677 8895.588 13.13972

Adjusted Total 678 9036.884

Total 679

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 6.0880 0.01361 Yes

Corrected for Ties 1 6.1909 0.01284 Yes

Number Sets of Ties 14

Multiplicity Factor 5202732

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 95737.00 319.12 -2.4674 3

HWFF 379 135123.00 356.53 2.4674 4

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 3.8426 0.04996 Yes

Van der Waerden - Normal Quantiles 1 3.9118 0.04795 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 679 4.789396 4.735959

**A: Type**

CTGFWS 300 4.276667 -0.459292 3 3.310082 0.2092822

HWFF 379 5.195251 0.459292 4 3.855715 0.1861973

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Enjoyfood Enjoy food

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9074 0.00000 Yes

Anderson-Darling 20.0134 0.00000 Yes

D'Agostino Skewness 8.0651 0.00000 Yes

D'Agostino Kurtosis -0.8553 0.39237 No

D'Agostino Omnibus (Skewness and Kurtosis) 65.7773 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 2.2736 0.13206 Yes

Levene (Data - Means) 0.7792 0.37770 No

Conover (Ranks of Deviations) 10.5243 0.00118 Yes

Bartlett (Likelihood Ratio) 0.0067 0.93487 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 51.88463 51.88463 4.6951 0.03060 Yes 0.58076

Within (Error) 678 7492.467 11.05084

Adjusted Total 679 7544.352

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 5.4382 0.01970 Yes

Corrected for Ties 1 5.5316 0.01868 Yes

Number Sets of Ties 14

Multiplicity Factor 5308782

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 96218.50 320.73 -2.3320 3

HWFF 380 135321.50 356.11 2.3320 5

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 3.5245 0.06047 No

Van der Waerden - Normal Quantiles 1 3.5803 0.05847 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 4.780882 4.748158

**A: Type**

CTGFWS 300 4.47 -0.2781579 3 3.332585 0.1919274

HWFF 380 5.026316 0.2781579 5 3.317713 0.170532

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Socialisation Meet people with similar interests

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9769 0.00000 Yes

Anderson-Darling 4.4781 0.00000 Yes

D'Agostino Skewness 0.3040 0.76114 No

D'Agostino Kurtosis -5.6774 0.00000 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 32.3253 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 2.2887 0.13079 Yes

Levene (Data - Means) 1.9955 0.15823 Yes

Conover (Ranks of Deviations) 1.9836 0.15901 Yes

Bartlett (Likelihood Ratio) 1.4146 0.23429 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 174.1201 174.1201 16.5015 0.00005 Yes 0.98198

Within (Error) 678 7154.102 10.55177

Adjusted Total 679 7328.222

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 16.7506 0.00004 Yes

Corrected for Ties 1 16.9036 0.00004 Yes

Number Sets of Ties 14

Multiplicity Factor 2846646

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 112560.00 375.20 4.0928 8

HWFF 380 118980.00 313.11 -4.0928 6

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 15.4866 0.00008 Yes

Van der Waerden - Normal Quantiles 1 15.5200 0.00008 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 7.283823 7.343772

**A: Type**

CTGFWS 300 7.853333 0.5095614 8 3.364952 0.1875435

HWFF 380 6.83421 -0.5095614 6 3.153318 0.1666368

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Promotions Buy promotional items

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9811 0.00000 Yes

Anderson-Darling 3.2188 0.00000 Yes

D'Agostino Skewness -1.2163 0.22389 No

D'Agostino Kurtosis -3.3808 0.00072 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 12.9094 0.00157 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.0177 0.89434 No

Levene (Data - Means) 0.0315 0.85907 No

Conover (Ranks of Deviations) 0.0037 0.95143 No

Bartlett (Likelihood Ratio) 0.9709 0.32445 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 29.52355 29.52355 3.1469 0.07652 No 0.42533

Within (Error) 678 6360.824 9.381745

Adjusted Total 679 6390.347

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 4.1203 0.04237 Yes

Corrected for Ties 1 4.1701 0.04114 Yes

Number Sets of Ties 14

Multiplicity Factor 3751728

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 96987.00 323.29 -2.0299 7

HWFF 380 134553.00 354.09 2.0299 7

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 3.0146 0.08252 No

Van der Waerden - Normal Quantiles 1 3.0631 0.08009 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 7.591177 7.566491

**A: Type**

CTGFWS 300 7.356667 -0.2098246 7 2.969655 0.1768403

HWFF 380 7.776316 0.2098246 7 3.134617 0.1571267

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Unique Unique event in Cape Town

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9800 0.00000 Yes

Anderson-Darling 3.5966 0.00000 Yes

D'Agostino Skewness -3.3382 0.00084 Yes

D'Agostino Kurtosis -2.1113 0.03475 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 15.6013 0.00041 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.1777 0.67347 No

Levene (Data - Means) 0.1219 0.72713 No

Conover (Ranks of Deviations) 0.1063 0.74437 No

Bartlett (Likelihood Ratio) 0.5455 0.46016 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 107.8727 107.8727 12.7705 0.00038 Yes 0.94614

Within (Error) 677 5718.651 8.447048

Adjusted Total 678 5826.524

Total 679

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 10.4616 0.00122 Yes

Corrected for Ties 1 10.5855 0.00114 Yes

Number Sets of Ties 14

Multiplicity Factor 3664938

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 110210.00 367.37 3.2344 9

HWFF 379 120650.00 318.34 -3.2344 8

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 12.5996 0.00039 Yes

Van der Waerden - Normal Quantiles 1 12.5694 0.00039 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 679 8.225331 8.272023

**A: Type**

CTGFWS 300 8.673333 0.4013105 9 2.840219 0.1678

HWFF 379 7.870712 -0.4013105 8 2.957666 0.1492907

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Boredom Boredom

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9531 0.00000 Yes

Anderson-Darling 8.9164 0.00000 Yes

D'Agostino Skewness -6.1090 0.00000 Yes

D'Agostino Kurtosis -2.1099 0.03487 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 41.7719 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.5478 0.45947 No

Levene (Data - Means) 1.8562 0.17352 Yes

Conover (Ranks of Deviations) 0.3966 0.52886 No

Bartlett (Likelihood Ratio) 0.9073 0.34084 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 409.3562 409.3562 40.4289 0.00000 Yes 0.99999

Within (Error) 677 6854.859 10.12535

Adjusted Total 678 7264.215

Total 679

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 44.5020 0.00000 Yes

Corrected for Ties 1 44.9397 0.00000 Yes

Number Sets of Ties 14

Multiplicity Factor 3048558

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 118933.00 396.44 6.6710 11

HWFF 379 111927.00 295.32 -6.6710 9

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 46.6509 0.00000 Yes

Van der Waerden - Normal Quantiles 1 46.6730 0.00000 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 679 9.083947 9.174903

**A: Type**

CTGFWS 300 9.956667 0.7817634 11 3.27371 0.1837149

HWFF 379 8.39314 -0.7817634 9 3.107604 0.1634502

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Visitation Reason to visit Cape Town

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9436 0.00000 Yes

Anderson-Darling 14.4042 0.00000 Yes

D'Agostino Skewness -6.3697 0.00000 Yes

D'Agostino Kurtosis -2.4245 0.01533 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 46.4511 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 1.8918 0.16945 Yes

Levene (Data - Means) 1.3136 0.25214 No

Conover (Ranks of Deviations) 1.1612 0.28122 No

Bartlett (Likelihood Ratio) 0.1067 0.74390 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 578.461 578.461 55.8216 0.00000 Yes 1.00000

Within (Error) 678 7025.892 10.36267

Adjusted Total 679 7604.353

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 61.8348 0.00000 Yes

Corrected for Ties 1 62.5171 0.00000 Yes

Number Sets of Ties 14

Multiplicity Factor 3431742

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 122151.00 407.17 7.8635 11

HWFF 380 109389.00 287.87 -7.8635 9

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 59.7999 0.00000 Yes

Van der Waerden - Normal Quantiles 1 59.9466 0.00000 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 8.735294 8.844562

**A: Type**

CTGFWS 300 9.773334 0.9287719 11 3.186818 0.1858554

HWFF 380 7.91579 -0.9287719 9 3.24436 0.1651369

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Knowledge Increase food and wine knowledge

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9495 0.00000 Yes

Anderson-Darling 10.3379 0.00000 Yes

D'Agostino Skewness -5.0180 0.00000 Yes

D'Agostino Kurtosis -5.8711 0.00000 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 59.6506 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 4.9984 0.02570 Yes

Levene (Data - Means) 6.9413 0.00861 Yes

Conover (Ranks of Deviations) 7.0808 0.00779 Yes

Bartlett (Likelihood Ratio) 5.0827 0.02417 Yes

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 107.6238 107.6238 9.3273 0.00235 Yes 0.86209

Within (Error) 678 7823.163 11.53859

Adjusted Total 679 7930.787

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 13.8372 0.00020 Yes

Corrected for Ties 1 13.9655 0.00019 Yes

Number Sets of Ties 13

Multiplicity Factor 2888928

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 92688.50 308.96 -3.7198 8

HWFF 380 138851.50 365.40 3.7198 9

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 9.6685 0.00187 Yes

Van der Waerden - Normal Quantiles 1 9.7884 0.00176 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 7.904412 7.857281

**A: Type**

CTGFWS 300 7.456666 -0.400614 8 3.157217 0.1961172

HWFF 380 8.257895 0.400614 9 3.574583 0.1742547

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Meetingexperts Exchange ideas with food/wine experts

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9174 0.00000 Yes

Anderson-Darling 18.6130 0.00000 Yes

D'Agostino Skewness -5.7102 0.00000 Yes

D'Agostino Kurtosis -8.5084 0.00000 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 104.9983 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 5.2736 0.02196 Yes

Levene (Data - Means) 10.1596 0.00150 Yes

Conover (Ranks of Deviations) 5.0129 0.02516 Yes

Bartlett (Likelihood Ratio) 4.3553 0.03689 Yes

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 13.96298 13.96298 1.1652 0.28077 No 0.19007

Within (Error) 678 8124.506 11.98305

Adjusted Total 679 8138.469

Total 680

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 3.0527 0.08061 No

Corrected for Ties 1 3.0972 0.07843 No

Number Sets of Ties 13

Multiplicity Factor 4517988

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 97706.00 325.69 -1.7472 9

HWFF 380 133834.00 352.19 1.7472 10

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 1.2778 0.25830 No

Van der Waerden - Normal Quantiles 1 1.3046 0.25338 No

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 680 8.677941 8.660965

**A: Type**

CTGFWS 300 8.516666 -0.1442982 9 3.235938 0.1998587

HWFF 380 8.805264 0.1442982 10 3.629834 0.1775791

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**



**One-Way Analysis of Variance Report**

Dataset D:\Consult\CPUT\2022\Lara van Zyl\Results CTGFWS HWFF V2.NCSS

Response Giveaways Free giveaways

**Tests of the Normality of Residuals Assumption ───────────────────────────────────────────────────────────────────────**

 **Test Prob Reject Normality?**

**Test Name Statistic Level (α=0.20)**

Shapiro-Wilk 0.9173 0.00000 Yes

Anderson-Darling 20.1634 0.00000 Yes

D'Agostino Skewness -5.3235 0.00000 Yes

D'Agostino Kurtosis -10.5075 0.00000 Yes

D'Agostino Omnibus (Skewness and Kurtosis) 138.7470 0.00000 Yes

**Tests of the Equality of Group Variances Assumption ───────────────────────────────────────────────────────────────────**

 **Test Prob Reject Equal Variances?**

**Test Name Value Level (α=0.20)**

Brown-Forsythe (Data - Medians) 0.0085 0.92643 No

Levene (Data - Means) 0.6483 0.42100 No

Conover (Ranks of Deviations) 0.3023 0.58246 No

Bartlett (Likelihood Ratio) 0.1349 0.71336 No

**Box Plot Section ───────────────────────────────────────────────────────────────────────────────────────────**



**Analysis of Variance Table and F-Test ─────────────────────────────────────────────────────────────────────────────**

 **Reject**

 **Equal**

**Model Sum of Mean Prob Means? Power**

**Term DF Squares Square F-Ratio Level (α=0.05) (α=0.05)**

Between (Type ) 1 227.7938 227.7938 15.8544 0.00008 Yes 0.97811

Within (Error) 677 9727.046 14.36787

Adjusted Total 678 9954.84

Total 679

**Kruskal-Wallis One-Way ANOVA on Ranks ──────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All medians are equal.

H1: At least two medians are different.

**Test Results**

 **Chi-Squared Prob Reject H0?**

**Method DF (H) Level (α=0.05)**

Not Corrected for Ties 1 19.6871 0.00001 Yes

Corrected for Ties 1 20.0281 0.00001 Yes

Number Sets of Ties 14

Multiplicity Factor 5330526

**Group Detail**

 **Sum of Mean**

**Group Count Ranks Rank Z-Value Median**

CTGFWS 300 90737.50 302.46 -4.4370 9

HWFF 379 140122.50 369.72 4.4370 11

**Normal Scores Tests ─────────────────────────────────────────────────────────────────────────────────────────**

**Hypotheses**

H0: All group data distributions are the same.

H1: At least one group has observations that tend to be greater than those of the other groups.

**Results**

 **Chi-Squared Prob Reject H0?**

**Test DF (H) Level (α=0.20)**

Terry-Hoeffding - Expected Normal Scores 1 15.9319 0.00007 Yes

Van der Waerden - Normal Quantiles 1 16.1062 0.00006 Yes

**Descriptive Statistics ────────────────────────────────────────────────────────────────────────────────────────**

 **Standard**

 **Count Standard Error**

**Group (ni) Mean Effect Median Deviation √(MSE/ni)**

All 679 8.827688 8.759837

**A: Type**

CTGFWS 300 8.176666 -0.5831707 9 3.747747 0.2188444

HWFF 379 9.343008 0.5831707 11 3.823974 0.1947047

**Plots of Means Section ───────────────────────────────────────────────────────────────────────────────────────**

