ONEWAY alcohol BY rating

 /STATISTICS DESCRIPTIVES HOMOGENEITY

 /PLOT MEANS

 /MISSING ANALYSIS

 /POSTHOC=TUKEY ALPHA(0.05).

**Oneway**

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| **Notes** |
| Output Created | 07-JUN-2013 12:39:57 |
| Comments |  |
| Input | Data | C:\Users\donn\Documents\GCU Lead fac\Project with Judy for modifying PSY845 to introduce SPSS\drinks database -revised for course applications DH.sav |
| Active Dataset | DataSet1 |
| File Label |  SPSS/PC+ |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 35 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Statistics for each analysis are based on cases with no missing data for any variable in the analysis. |
| Syntax | ONEWAY alcohol BY rating /STATISTICS DESCRIPTIVES HOMOGENEITY /PLOT MEANS /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA(0.05). |
| Resources | Processor Time | 00:00:00.33 |
| Elapsed Time | 00:00:00.42 |

[DataSet1] C:\Users\donn\Documents\GCU Lead fac\Project with Judy for modifying PSY845 to introduce SPSS\drinks database -revised for course applications DH.sav

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| **Descriptives** |
| Alcohol by Volume (in %) for brand  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |
| Lower Bound | Upper Bound |
| VeryGood | 11 | 4.9000 | .17889 | .05394 | 4.7798 | 5.0202 |
| Good | 14 | 4.6000 | .38829 | .10377 | 4.3758 | 4.8242 |
| Fair | 10 | 4.5100 | .34140 | .10796 | 4.2658 | 4.7542 |
| Total | 35 | 4.6686 | .35295 | .05966 | 4.5473 | 4.7898 |

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| **Descriptives** |
| Alcohol by Volume (in %) for brand  |
|  | Minimum | Maximum |
|
| VeryGood | 4.70 | 5.20 |
| Good | 4.00 | 5.50 |
| Fair | 3.90 | 5.00 |
| Total | 3.90 | 5.50 |

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| **Test of Homogeneity of Variances** |
| Alcohol by Volume (in %) for brand  |
| Levene Statistic | df1 | df2 | Sig. |
| 1.420 | 2 | 32 | .256 |

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| **ANOVA** |
| Alcohol by Volume (in %) for brand  |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .906 | 2 | .453 | 4.357 | .021 |
| Within Groups | 3.329 | 32 | .104 |  |  |
| Total | 4.235 | 34 |  |  |  |

**Post Hoc Tests**

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| **Multiple Comparisons** |
| Dependent Variable: Alcohol by Volume (in %) for brand  |
| Tukey HSD  |
| (I) Rated Quality of Brand | (J) Rated Quality of Brand | Mean Difference (I-J) | Std. Error | Sig. |
|
| VeryGood | Good | .30000 | .12995 | .069 |
| Fair | .39000\* | .14093 | .025 |
| Good | VeryGood | -.30000 | .12995 | .069 |
| Fair | .09000 | .13354 | .780 |
| Fair | VeryGood | -.39000\* | .14093 | .025 |
| Good | -.09000 | .13354 | .780 |

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| **Multiple Comparisons** |
| Dependent Variable: Alcohol by Volume (in %) for brand  |
| Tukey HSD  |
| (I) Rated Quality of Brand | (J) Rated Quality of Brand | 95% Confidence Interval |
| Lower Bound | Upper Bound |
| VeryGood | Good | -.0193 | .6193 |
| Fair | .0437\* | .7363 |
| Good | VeryGood | -.6193 | .0193 |
| Fair | -.2382 | .4182 |
| Fair | VeryGood | -.7363\* | -.0437 |
| Good | -.4182 | .2382 |

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| \*. The mean difference is significant at the 0.05 level. |

**Homogeneous Subsets**

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| **Alcohol by Volume (in %) for brand** |
| Tukey HSDa,b  |
| Rated Quality of Brand | N | Subset for alpha = 0.05 |
| 1 | 2 |
| Fair | 10 | 4.5100 |  |
| Good | 14 | 4.6000 | 4.6000 |
| VeryGood | 11 |  | 4.9000 |
| Sig. |  | .784 | .082 |

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| Means for groups in homogeneous subsets are displayed. |
| a. Uses Harmonic Mean Sample Size = 11.436. |
| b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed. |

**Means Plots**

