**General Linear Model**

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| **Notes** |  |  |
| Output Created |  | 30-NOV-2024 17:10:53 |
| Comments |  |  |
| Input | Data | C:\Users\bhuvansh\Desktop\cleaned\_data.csv |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 27 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Statistics are based on all cases with valid data for all variables in the model. |
| Syntax |  | GLM Pre\_Anxiety Post\_Anxiety BY Game\_Type Cult\_Back /WSFACTOR=Time 2 Polynomial /METHOD=SSTYPE(3) /PRINT=ETASQ HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Time /DESIGN=Game\_Type Cult\_Back Game\_Type\*Cult\_Back. |
| Resources | Processor Time | 00:00:00.00 |
| Elapsed Time | 00:00:00.01 |

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| **Within-Subjects Factors** |  |
| Measure: MEASURE\_1 |  |
| Time | Dependent Variable |
| 1 | Pre\_Anxiety |
| 2 | Post\_Anxiety |

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| **Between-Subjects Factors** |  |  |
|  |  | N |
| Game\_Type | 1 | 16 |
| 2 | 11 |
| Cult\_Back | 0 | 4 |
| 1 | 23 |

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| **Box's Test of Equality of Covariance Matrices**a |  |
| Box's M | 10.283 |
| F | 3.045 |
| df1 | 3 |
| df2 | 11615.765 |
| Sig. | .028 |

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| Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.a |  |
| a. Design: Intercept + Game\_Type + Cult\_Back + Game\_Type \* Cult\_Back Within Subjects Design: Time |  |

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| **Multivariate Tests**a |  |  |  |  |  |
| Effect |  | Value | F | Hypothesis df | Error df |
| Time | Pillai's Trace | .016 | .377b | 1.000 | 23.000 |
| Wilks' Lambda | .984 | .377b | 1.000 | 23.000 |
| Hotelling's Trace | .016 | .377b | 1.000 | 23.000 |
| Roy's Largest Root | .016 | .377b | 1.000 | 23.000 |
| Time \* Game\_Type | Pillai's Trace | .028 | .653b | 1.000 | 23.000 |
| Wilks' Lambda | .972 | .653b | 1.000 | 23.000 |
| Hotelling's Trace | .028 | .653b | 1.000 | 23.000 |
| Roy's Largest Root | .028 | .653b | 1.000 | 23.000 |
| Time \* Cult\_Back | Pillai's Trace | .016 | .377b | 1.000 | 23.000 |
| Wilks' Lambda | .984 | .377b | 1.000 | 23.000 |
| Hotelling's Trace | .016 | .377b | 1.000 | 23.000 |
| Roy's Largest Root | .016 | .377b | 1.000 | 23.000 |
| Time \* Game\_Type \* Cult\_Back | Pillai's Trace | .055 | 1.340b | 1.000 | 23.000 |
| Wilks' Lambda | .945 | 1.340b | 1.000 | 23.000 |
| Hotelling's Trace | .058 | 1.340b | 1.000 | 23.000 |
| Roy's Largest Root | .058 | 1.340b | 1.000 | 23.000 |

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| **Multivariate Tests**a |  |  |  |
| Effect |  | Sig. | Partial Eta Squared |
| Time | Pillai's Trace | .545 | .016 |
| Wilks' Lambda | .545 | .016 |
| Hotelling's Trace | .545 | .016 |
| Roy's Largest Root | .545 | .016 |
| Time \* Game\_Type | Pillai's Trace | .427 | .028 |
| Wilks' Lambda | .427 | .028 |
| Hotelling's Trace | .427 | .028 |
| Roy's Largest Root | .427 | .028 |
| Time \* Cult\_Back | Pillai's Trace | .545 | .016 |
| Wilks' Lambda | .545 | .016 |
| Hotelling's Trace | .545 | .016 |
| Roy's Largest Root | .545 | .016 |
| Time \* Game\_Type \* Cult\_Back | Pillai's Trace | .259 | .055 |
| Wilks' Lambda | .259 | .055 |
| Hotelling's Trace | .259 | .055 |
| Roy's Largest Root | .259 | .055 |

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| a. Design: Intercept + Game\_Type + Cult\_Back + Game\_Type \* Cult\_Back Within Subjects Design: Time |  |  |  |
| b. Exact statistic |  |  |  |

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| **Mauchly's Test of Sphericity**a |  |  |  |  |  |
| Measure: MEASURE\_1 |  |  |  |  |  |
| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilonb |
| Greenhouse-Geisser |
| Time | 1.000 | .000 | 0 | . | 1.000 |

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| **Mauchly's Test of Sphericity**a |  |  |
| Measure: MEASURE\_1 |  |  |
| Within Subjects Effect | Epsilon |  |
| Huynh-Feldt | Lower-bound |
| Time | 1.000 | 1.000 |

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| Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.a |  |  |
| a. Design: Intercept + Game\_Type + Cult\_Back + Game\_Type \* Cult\_Back Within Subjects Design: Time |  |  |
| b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table. |  |  |

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| **Tests of Within-Subjects Effects** |  |  |  |  |  |
| Measure: MEASURE\_1 |  |  |  |  |  |
| Source |  | Type III Sum of Squares | df | Mean Square | F |
| Time | Sphericity Assumed | 20.906 | 1 | 20.906 | .377 |
| Greenhouse-Geisser | 20.906 | 1.000 | 20.906 | .377 |
| Huynh-Feldt | 20.906 | 1.000 | 20.906 | .377 |
| Lower-bound | 20.906 | 1.000 | 20.906 | .377 |
| Time \* Game\_Type | Sphericity Assumed | 36.208 | 1 | 36.208 | .653 |
| Greenhouse-Geisser | 36.208 | 1.000 | 36.208 | .653 |
| Huynh-Feldt | 36.208 | 1.000 | 36.208 | .653 |
| Lower-bound | 36.208 | 1.000 | 36.208 | .653 |
| Time \* Cult\_Back | Sphericity Assumed | 20.906 | 1 | 20.906 | .377 |
| Greenhouse-Geisser | 20.906 | 1.000 | 20.906 | .377 |
| Huynh-Feldt | 20.906 | 1.000 | 20.906 | .377 |
| Lower-bound | 20.906 | 1.000 | 20.906 | .377 |
| Time \* Game\_Type \* Cult\_Back | Sphericity Assumed | 74.276 | 1 | 74.276 | 1.340 |
| Greenhouse-Geisser | 74.276 | 1.000 | 74.276 | 1.340 |
| Huynh-Feldt | 74.276 | 1.000 | 74.276 | 1.340 |
| Lower-bound | 74.276 | 1.000 | 74.276 | 1.340 |
| Error(Time) | Sphericity Assumed | 1275.302 | 23 | 55.448 |  |
| Greenhouse-Geisser | 1275.302 | 23.000 | 55.448 |  |
| Huynh-Feldt | 1275.302 | 23.000 | 55.448 |  |
| Lower-bound | 1275.302 | 23.000 | 55.448 |  |

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| **Tests of Within-Subjects Effects** |  |  |  |
| Measure: MEASURE\_1 |  |  |  |
| Source |  | Sig. | Partial Eta Squared |
| Time | Sphericity Assumed | .545 | .016 |
| Greenhouse-Geisser | .545 | .016 |
| Huynh-Feldt | .545 | .016 |
| Lower-bound | .545 | .016 |
| Time \* Game\_Type | Sphericity Assumed | .427 | .028 |
| Greenhouse-Geisser | .427 | .028 |
| Huynh-Feldt | .427 | .028 |
| Lower-bound | .427 | .028 |
| Time \* Cult\_Back | Sphericity Assumed | .545 | .016 |
| Greenhouse-Geisser | .545 | .016 |
| Huynh-Feldt | .545 | .016 |
| Lower-bound | .545 | .016 |
| Time \* Game\_Type \* Cult\_Back | Sphericity Assumed | .259 | .055 |
| Greenhouse-Geisser | .259 | .055 |
| Huynh-Feldt | .259 | .055 |
| Lower-bound | .259 | .055 |
| Error(Time) | Sphericity Assumed |  |  |
| Greenhouse-Geisser |  |  |
| Huynh-Feldt |  |  |
| Lower-bound |  |  |

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| **Tests of Within-Subjects Contrasts** |  |  |  |  |  |  |
| Measure: MEASURE\_1 |  |  |  |  |  |  |
| Source | Time | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Time | Linear | 20.906 | 1 | 20.906 | .377 | .545 |
| Time \* Game\_Type | Linear | 36.208 | 1 | 36.208 | .653 | .427 |
| Time \* Cult\_Back | Linear | 20.906 | 1 | 20.906 | .377 | .545 |
| Time \* Game\_Type \* Cult\_Back | Linear | 74.276 | 1 | 74.276 | 1.340 | .259 |
| Error(Time) | Linear | 1275.302 | 23 | 55.448 |  |  |

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| **Tests of Within-Subjects Contrasts** |  |  |
| Measure: MEASURE\_1 |  |  |
| Source | Time | Partial Eta Squared |
| Time | Linear | .016 |
| Time \* Game\_Type | Linear | .028 |
| Time \* Cult\_Back | Linear | .016 |
| Time \* Game\_Type \* Cult\_Back | Linear | .055 |
| Error(Time) | Linear |  |

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| **Levene's Test of Equality of Error Variances**a |  |  |  |  |  |
|  |  | Levene Statistic | df1 | df2 | Sig. |
| Pre\_Anxiety | Based on Mean | 1.236 | 3 | 23 | .319 |
| Based on Median | 1.010 | 3 | 23 | .406 |
| Based on Median and with adjusted df | 1.010 | 3 | 12.100 | .422 |
| Based on trimmed mean | 1.117 | 3 | 23 | .363 |
| Post\_Anxiety | Based on Mean | 1.219 | 3 | 23 | .325 |
| Based on Median | .933 | 3 | 23 | .441 |
| Based on Median and with adjusted df | .933 | 3 | 20.713 | .443 |
| Based on trimmed mean | 1.174 | 3 | 23 | .341 |

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| Tests the null hypothesis that the error variance of the dependent variable is equal across groups.a |  |  |  |  |  |
| a. Design: Intercept + Game\_Type + Cult\_Back + Game\_Type \* Cult\_Back Within Subjects Design: Time |  |  |  |  |  |

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| **Tests of Between-Subjects Effects** |  |  |  |  |  |
| Measure: MEASURE\_1 |  |  |  |  |  |
| Transformed Variable: Average |  |  |  |  |  |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Intercept | 43930.356 | 1 | 43930.356 | 1095.877 | <.001 |
| Game\_Type | 423.993 | 1 | 423.993 | 10.577 | .004 |
| Cult\_Back | 757.738 | 1 | 757.738 | 18.902 | <.001 |
| Game\_Type \* Cult\_Back | 831.027 | 1 | 831.027 | 20.731 | <.001 |
| Error | 922.000 | 23 | 40.087 |  |  |

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| **Tests of Between-Subjects Effects** |  |
| Measure: MEASURE\_1 |  |
| Transformed Variable: Average |  |
| Source | Partial Eta Squared |
| Intercept | .979 |
| Game\_Type | .315 |
| Cult\_Back | .451 |
| Game\_Type \* Cult\_Back | .474 |
| Error |  |