TEK FAKTÖRLÜ ANOVA

Post-hoc testleri ile birlikte tek faktörlü gruplaer arası varyans analizi için yapılması gereken işlemler:

1. Analyze > Compare Means > One-way ANOVA
2. Bağımlı değişkeninizi Dependent list kutusuna taşıyın.
3. Bağımsız değişkeninizi (en az 3 kategori içermeli) Factor kutusuna taşıyın.
4. Option butonuna tıklayın.
5. Descriptive, Homogeneity of Variance Test tıklayın.
6. Missing Values için Exclude cases analysis by analysis’I seçin.
7. Post-hoc’ butonuna tıklayın.
8. Scheffe ve Dunnett-C’yi seçin.
9. Continue > OK

**Çıktıların Yorumlanması**

1. Descriptive tablosu 3 grup için ayrı ayrı örneklem büyüklüğü, ortalama ve standart sapma değerlerini gösterir.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Descriptives** | | | | | |
|  | | N | Mean | Std. Deviation | Std. Error |
|
| Self positioning in political scale | A religious person | 41265 | 5.92 | 2.336 | .011 |
| Not a religious person | 16601 | 5.48 | 2.179 | .017 |
| An atheist | 3569 | 4.93 | 2.195 | .037 |
| Total | 61435 | 5.74 | 2.303 | .009 |
| Satisfaction with your life | A religious person | 53518 | 6.90 | 2.308 | .010 |
| Not a religious person | 22031 | 6.86 | 2.133 | .014 |
| An atheist | 4563 | 6.85 | 2.068 | .031 |
| Total | 80112 | 6.89 | 2.248 | .008 |
| How many children do you have | A religious person | 53350 | 2.03 | 1.907 | .008 |
| Not a religious person | 21838 | 1.54 | 1.555 | .011 |
| An atheist | 4034 | 1.29 | 1.313 | .021 |
| Total | 79223 | 1.86 | 1.808 | .006 |
| Age | A religious person | 53696 | 41.81 | 16.722 | .072 |
| Not a religious person | 22140 | 41.35 | 16.268 | .109 |
| An atheist | 4587 | 42.42 | 16.640 | .246 |
| Total | 80423 | 41.72 | 16.595 | .059 |
| What age did you complete your education | A religious person | 47600 | 20.26 | 11.042 | .051 |
| Not a religious person | 20645 | 19.99 | 8.218 | .057 |
| An atheist | 4241 | 20.40 | 7.296 | .112 |
| Total | 72486 | 20.19 | 10.121 | .038 |

1. ANOVA tablosundaki p değeri (sig.) .05’ten küçükse, gruplar arasında istatistiksel olarak anlamlı bir fark olduğunu gösterir. Değilse, gruplar arasında anlamlı bir fark olmadığı söylenecektir.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ANOVA** | | | | | |
|  | | | Sum of Squares | | df | Mean Square | F | Sig. |
| Self positioning in political scale | Between Groups | | 4817.480 | | 2 | 2408.740 | 460.752 | .000 |
| Within Groups | | 321157.084 | | 61432 | 5.228 |  |  |
| Total | | 325974.564 | | 61434 |  |  |  |
| Satisfaction with your life | Between Groups | | 26.039 | | 2 | 13.019 | 2.577 | .076 |
| Within Groups | | 404726.593 | | 80108 | 5.052 |  |  |
| Total | | 404752.632 | | 80110 |  |  |  |
| How many children do you have | Between Groups | | 5077.417 | | 2 | 2538.708 | 792.287 | .000 |
| Within Groups | | 253843.012 | | 79220 | 3.204 |  |  |
| Total | | 258920.428 | | 79222 |  |  |  |
| Age | Between Groups | | 5608.281 | | 2 | 2804.140 | 10.184 | .000 |
| Within Groups | | 22142850.073 | | 80419 | 275.344 |  |  |
| Total | | 22148458.354 | | 80421 |  |  |  |
| What age did you complete your education | Between Groups | | 1262.824 | | 2 | 631.412 | 6.165 | .002 |
| Within Groups | | 7423390.150 | | 72483 | 102.416 |  |  |
| Total | | 7424652.974 | | 72485 |  |  |  |
| 1. Post-hoc testleri için varyans homojenliği testine bakılmalıdır. P değeri 0.05’ten küçükse, varyans homojenliği varsayımı sağlanmaz.   **Test of Homogeneity of Variances** | | | | | |
|  | Levene Statistic | df1 | | df2 | Sig. |
| Self positioning in political scale | 108.150 | 2 | | 61432 | .000 |
| Satisfaction with your life | 145.745 | 2 | | 80109 | .000 |
| How many children do you have | 453.334 | 2 | | 79220 | .000 |
| Age | 16.046 | 2 | | 80420 | .000 |
| What age did you complete your education | 139.085 | 2 | | 72483 | .000 |

1. Çoklu karşılaştırmalar ANOVa tablosunda hipotez reddedilmişse (istatistiksel olarak anlamlı bir fark varsa) incelenecektir. Mean difference kolonundaki değerlerin yanında \* işareti görüyorsanız, ikili karşılaştırmalarda istatistiksel olarak anlamlı bir fark olduğu sonucuna ulaşılacaktır.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Multiple Comparisons** | | | | | | |
| Dependent Variable | | (I) Religious person | (J) Religious person | Mean Difference (I-J) | Std. Error | Sig. |
|
| Self positioning in political scale | Scheffe | A religious person | Not a religious person | .440\* | .021 | .000 |
| An atheist | .993\* | .040 | .000 |
| Not a religious person | A religious person | -.440\* | .021 | .000 |
| An atheist | .553\* | .042 | .000 |
| An atheist | A religious person | -.993\* | .040 | .000 |
| Not a religious person | -.553\* | .042 | .000 |
| Dunnett C | A religious person | Not a religious person | .440\* | .020 |  |
| An atheist | .993\* | .038 |  |
| Not a religious person | A religious person | -.440\* | .020 |  |
| An atheist | .553\* | .040 |  |
| An atheist | A religious person | -.993\* | .038 |  |
| Not a religious person | -.553\* | .040 |  |
| Satisfaction with your life | Scheffe | A religious person | Not a religious person | .035 | .018 | .153 |
| An atheist | .051 | .035 | .344 |
| Not a religious person | A religious person | -.035 | .018 | .153 |
| An atheist | .016 | .037 | .911 |
| An atheist | A religious person | -.051 | .035 | .344 |
| Not a religious person | -.016 | .037 | .911 |
| Dunnett C | A religious person | Not a religious person | .035 | .017 |  |
| An atheist | .051 | .032 |  |
| Not a religious person | A religious person | -.035 | .017 |  |
| An atheist | .016 | .034 |  |
| An atheist | A religious person | -.051 | .032 |  |
| Not a religious person | -.016 | .034 |  |
| How many children do you have | Scheffe | A religious person | Not a religious person | .489\* | .014 | .000 |
| An atheist | .741\* | .029 | .000 |
| Not a religious person | A religious person | -.489\* | .014 | .000 |
| An atheist | .252\* | .031 | .000 |
| An atheist | A religious person | -.741\* | .029 | .000 |
| Not a religious person | -.252\* | .031 | .000 |
| Dunnett C | A religious person | Not a religious person | .489\* | .013 |  |
| An atheist | .741\* | .022 |  |
| Not a religious person | A religious person | -.489\* | .013 |  |
| An atheist | .252\* | .023 |  |
| An atheist | A religious person | -.741\* | .022 |  |
| Not a religious person | -.252\* | .023 |  |
| Age | Scheffe | A religious person | Not a religious person | .453\* | .133 | .003 |
| An atheist | -.611 | .255 | .057 |
| Not a religious person | A religious person | -.453\* | .133 | .003 |
| An atheist | -1.064\* | .269 | .000 |
| An atheist | A religious person | .611 | .255 | .057 |
| Not a religious person | 1.064\* | .269 | .000 |
| Dunnett C | A religious person | Not a religious person | .453\* | .131 |  |
| An atheist | -.611\* | .256 |  |
| Not a religious person | A religious person | -.453\* | .131 |  |
| An atheist | -1.064\* | .269 |  |
| An atheist | A religious person | .611\* | .256 |  |
| Not a religious person | 1.064\* | .269 |  |
| What age did you complete your education | Scheffe | A religious person | Not a religious person | .273\* | .084 | .005 |
| An atheist | -.138 | .162 | .698 |
| Not a religious person | A religious person | -.273\* | .084 | .005 |
| An atheist | -.410 | .171 | .056 |
| An atheist | A religious person | .138 | .162 | .698 |
| Not a religious person | .410 | .171 | .056 |
| Dunnett C | A religious person | Not a religious person | .273\* | .076 |  |
| An atheist | -.138 | .123 |  |
| Not a religious person | A religious person | -.273\* | .076 |  |
| An atheist | -.410\* | .126 |  |
| An atheist | A religious person | .138 | .123 |  |
| Not a religious person | .410\* | .126 |  |
| \*. The mean difference is significant at the 0.05 level. | | | | | | |