Archeological Data

Variable Hierarchical Clustering



| **Report Based on Person Clustering** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cluster | | Local ceramics | Arrow points | Shell bead bracelets | Chipped stone | Bone pins | Bone awls | Imported ceramics | metals |
| 1 | Mean | .77 | .62 | .00 | 1.00 | .54 | .00 | .31 | .23 |
| N | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| SD | .439 | .506 | .000 | .000 | .519 | .000 | .480 | .439 |
| 2 | Mean | .67 | .00 | .25 | .00 | .50 | .42 | .42 | .08 |
| N | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| SD | .492 | .000 | .452 | .000 | .522 | .515 | .515 | .289 |
| Total | Mean | .72 | .32 | .12 | .52 | .52 | .20 | .36 | .16 |
| N | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| SD | .458 | .476 | .332 | .510 | .510 | .408 | .490 | .374 |

| **Cluster \* status Crosstabulation** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | | | status | | Total |
| 0 Nonelite | 1 Elite |
| Cluster | 1 | Count | 9 | 4 | 13 |
| % within Cluster | 69.2% | 30.8% | 100.0% |
| 2 | Count | 7 | 5 | 12 |
| % within Cluster | 58.3% | 41.7% | 100.0% |
| Total | | Count | 16 | 9 | 25 |
| % within Cluster | 64.0% | 36.0% | 100.0% |

| **Chi-Square Tests** | | | | |
| --- | --- | --- | --- | --- |
|  | Value | df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | .322a | 1 | .571 |
| N of Valid Cases | 25 |  |  |
| a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.32. | | | | |
| b. Computed only for a 2x2 table | | | | |

| **Symmetric Measures** | | | |
| --- | --- | --- | --- |
|  | | Value | Approx. Sig. |
| Nominal by Nominal | Phi | .113 | .571 |
| Cramer's V | .113 | .571 |
| N of Valid Cases | | 25 |  |

| **Cluster \* gender Crosstabulation** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | | | gender | | Total |
| 0 Male | 1 Female |
| Cluster | 1 | Count | 13 | 0 | 13 |
| % within Cluster | 100.0% | .0% | 100.0% |
| 2 | Count | 0 | 12 | 12 |
| % within Cluster | .0% | 100.0% | 100.0% |
| Total | | Count | 13 | 12 | 25 |
| % within Cluster | 52.0% | 48.0% | 100.0% |

| **Independent Samples Test** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| age | Equal variances assumed | .383 | .542 | -.289 | 23 | .776 | -.096 | .333 | -.786 | .593 |
| Equal variances not assumed |  |  | -.288 | 22.415 | .776 | -.096 | .334 | -.789 | .597 |

Aggression Data

| **Communalities** | | |
| --- | --- | --- |
|  | Initial | Extraction |
| AggPh1 This child hits, pushes, or shoves peers | .785 | .798 |
| AggPh2 This child snatches objects from his or her peers | .649 | .533 |
| AggPh3 This child says mean things to peers, such as teasing or name calling | .744 | .717 |
| AggPh4 This child verbally threatens their peers | .819 | .783 |
| AggPr1 This child starts fights with peers | .874 | .899 |
| AggPr2 This child threatens or bullies others in order to get his or her own way | .831 | .783 |
| AggPr3 This child gets other kids to gang up on a peer that he or she does not like | .870 | .869 |
| AggR1 This child tells peers not to play with other peers, who are present | .757 | .688 |
| AggR2 This child tells peers not to play with other peers, who are not present | .791 | .820 |
| AggR3 This child tries to get others to dislike another peer, who is not present | .751 | .727 |
| AggR4 When mad at a peer, this child keeps the peer from being in the play group | .651 | .590 |
| Extraction Method: Principal Axis Factoring. | | |

| **Total Variance Explained** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Factor | Initial Eigenvalues | | | Extraction Sums of  Squared Loadings | | | Rotation Sums of  Squared Loadings | | |
| Total | % of Var | Cumul % | Total | % of Var | Cumul % | Total | % of Variance | Cumul % |
| 1 | 6.422 | 58.377 | 58.377 | 6.175 | 56.134 | 56.134 | 4.429 | 40.265 | 40.265 |
| 2 | 2.256 | 20.510 | 78.888 | 2.032 | 18.471 | 74.605 | 3.777 | 34.340 | 74.605 |
| 3 | .530 | 4.817 | 83.705 |  |  |  |  |  |  |
| 4 | .476 | 4.330 | 88.035 |  |  |  |  |  |  |
| 5 | .398 | 3.619 | 91.655 |  |  |  |  |  |  |
| 6 | .282 | 2.560 | 94.215 |  |  |  |  |  |  |
| 7 | .190 | 1.728 | 95.943 |  |  |  |  |  |  |
| 8 | .163 | 1.484 | 97.427 |  |  |  |  |  |  |
| 9 | .110 | .997 | 98.424 |  |  |  |  |  |  |
| 10 | .091 | .825 | 99.249 |  |  |  |  |  |  |
| 11 | .083 | .751 | 100.000 |  |  |  |  |  |  |
| Extraction Method: Principal Axis Factoring. | | | | | | | | | |



| **Rotated Factor Matrixa** | | |
| --- | --- | --- |
|  | Factor | |
| 1 | 2 |
| AggPr1 This child starts fights with peers | .928 | .195 |
| AggPh1 This child hits, pushes, or shoves peers | .893 | -.042 |
| AggPh4 This child verbally threatens their peers | .840 | .278 |
| AggPr2 This child threatens or bullies others in order to get his or her own way | .806 | .366 |
| AggPh3 This child says mean things to peers, such as teasing or name calling | .728 | .432 |
| AggPh2 This child snatches objects from his or her peers | .706 | .185 |
| AggPr3 This child gets other kids to gang up on a peer that he or she does not like | .218 | .906 |
| AggR2 This child tells peers not to play with other peers, who are not present | .223 | .877 |
| AggR3 This child tries to get others to dislike another peer, who is not present | .147 | .840 |
| AggR1 This child tells peers not to play with other peers, who are present | .147 | .816 |
| AggR4 When mad at a peer, this child keeps the peer from being in the play group | .498 | .585 |
| Extraction Method: Principal Axis Factoring.  Rotation Method: Varimax with Kaiser Normalization. | | |
| a. Rotation converged in 3 iterations. | | |



| Report | | | |
| --- | --- | --- | --- |
| Gender | | Factor 1 | Factor 2 |
| 0 Male | Mean | .0851732 | -.1885071 |
| N | 45 | 45 |
| Std. Deviation | .96927209 | .85121198 |
| 1 Female | Mean | -.1008630 | .2232321 |
| N | 38 | 38 |
| Std. Deviation | .98827211 | 1.06264232 |

| **ANOVA Table** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | Sum of Squares | df | Mean Square | F | Sig. |
| Factor 1 | Between Groups |  | .713 | 1 | .713 | .745 | .390 |
| Within Groups | | 77.475 | 81 | .956 |  |  |
| Total | | 78.188 | 82 |  |  |  |
| Factor 2 | Between Groups |  | 3.493 | 1 | 3.493 | 3.841 | .053 |
| Within Groups | | 73.661 | 81 | .909 |  |  |
| Total | | 77.154 | 82 |  |  |  |