PSYC6060 Final Exam

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**Results**

The results form a power analysis that takes into account two predictor with R2=.125, and a power of .85, reveals that there should be a sample size of 76 participants, though ultimately we obtained a sample size of 2800 participants. The relations between agreeableness, conscientiousness, and job performance are shown in Table 1. Agreeableness accounted for an additional 17 percent, sr2=.17 [.14, .19], of the variance in job performance beyond conscientiousness alone bringing the total percentage variance accounted for to 23.5 percent, R2=.24 [.21, .26], see Table 2. With respect to men, agreeableness accounted for an additional 18 percent, sr2=.18 [.14, .13], of the variance in job performance beyond conscientiousness alone bringing the total percentage variance accounted for to 26.9 percent, R2=.27 [.22, .31], see Table 3. With respect to women, agreeableness accounted for an additional 15 percent, sr2=.15 [.12, .18], of the variance in job performance beyond conscientiousness alone bringing the total percentage variance accounted for to 20.4 percent, R2=.20 [.17, .23], see Table 4.

Table 1

*Means, standard deviations, and correlations with confidence intervals*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | *M* | *SD* | 1 | 2 | 3 |
|  |  |  |  |  |  |
| 1. age | 48.78 | 11.13 |  |  |  |
|  |  |  |  |  |  |
| 2. agreeableness | 4.65 | 0.90 | .19\*\* |  |  |
|  |  |  | [.15, .22] | α=.72 [.69, .72] |  |
|  |  |  |  |  |  |
| 3. conscientiousness | 4.27 | 0.95 | .12\*\* | .26\*\* | α=.73 [.71, .74] |
|  |  |  | [.08, .15] | [.22, .29] |  |
|  |  |  |  |  |  |
| 4. performance | 4.15 | 1.06 | .06\*\* | .46\*\* | .26\*\* | α=.76 [.75, .78] |
|  |  |  | [.03, .10] | [.43, .49] | [.23, .30] |
|  |  |  |  |  |  |

*Note.* \* indicates *p* < .05; \*\* indicates *p* < .01. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014).

Table 2

*Regression results using performance as the criterion*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | *b* | *b*  95% CI  [LL, UL] | *beta* | *beta*  95% CI  [LL, UL] | *sr2* | *sr2*  95% CI  [LL, UL] | *r* | Fit |
| (Intercept) | 1.10\*\* | [0.88, 1.31] |  |  |  |  |  |  |
| agreeableness | 0.50\*\* | [0.46, 0.54] | 0.42 | [0.39, 0.46] | .17 | [.14, .19] | .46\*\* |  |
| conscientiousness | 0.17\*\* | [0.13, 0.21] | 0.15 | [0.12, 0.19] | .02 | [.01, .03] | .26\*\* |  |
|  |  |  |  |  |  |  |  | *R2*  = .235\*\* |
|  |  |  |  |  |  |  |  | 95% CI[.21,.26] |
|  |  |  |  |  |  |  |  |  |

*Note.* \* indicates *p* < .05; \*\* indicates *p* < .01. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights; *beta* indicates the standardized regression weights; *sr2* represents the semi-partial correlation squared; *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.

Table 3

*Regression results using performance as the criterion*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | *b* | *b*  95% CI  [LL, UL] | *beta* | *beta*  95% CI  [LL, UL] | *sr2* | *sr2*  95% CI  [LL, UL] | *r* | Fit |
| (Intercept) | 0.76\*\* | [0.40, 1.12] |  |  |  |  |  |  |
| agreeableness | 0.53\*\* | [0.46, 0.60] | 0.44 | [0.38, 0.50] | .18 | [.14, .23] | .49\*\* |  |
| conscientiousness | 0.22\*\* | [0.15, 0.28] | 0.19 | [0.13, 0.24] | .03 | [.01, .05] | .29\*\* |  |
|  |  |  |  |  |  |  |  | *R2*  = .269\*\* |
|  |  |  |  |  |  |  |  | 95% CI[.22,.31] |
|  |  |  |  |  |  |  |  |  |

*Note.* \* indicates *p* < .05; \*\* indicates *p* < .01. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights; *beta* indicates the standardized regression weights; *sr2* represents the semi-partial correlation squared; *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.

Table 4

*Regression results using performance as the criterion*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | *b* | *b*  95% CI  [LL, UL] | *beta* | *beta*  95% CI  [LL, UL] | *sr2* | *sr2*  95% CI  [LL, UL] | *r* | Fit |
| (Intercept) | 1.30\*\* | [1.03, 1.57] |  |  |  |  |  |  |
| agreeableness | 0.48\*\* | [0.43, 0.53] | 0.40 | [0.36, 0.44] | .15 | [.12, .18] | .43\*\* |  |
| conscientiousness | 0.15\*\* | [0.10, 0.19] | 0.14 | [0.09, 0.18] | .02 | [.01, .03] | .23\*\* |  |
|  |  |  |  |  |  |  |  | *R2*  = .204\*\* |
|  |  |  |  |  |  |  |  | 95% CI[.17,.23] |
|  |  |  |  |  |  |  |  |  |

*Note.* \* indicates *p* < .05; \*\* indicates *p* < .01. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights; *beta* indicates the standardized regression weights; *sr2* represents the semi-partial correlation squared; *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.