**Supplementary Material:**

Nothing wrong about change: The correct choice of the dependent variable and design in prediction of intervention success

André Mattesa\* & Mandy Rohegerb\*

*a Department of Individual Differences and Psychological Assessment, University of Cologne, Pohligstraße 1, 50969 Cologne, Germany; andre.mattes@uni-koeln.de*

*b Department of Neurology, University Medicine Greifswald, Walther-Rathenau Str. 49, 17489 Greifswald, Germany; mandy.roheger@med.uni-greifswald.de*

*\*Shared First Authorship*

Table 1: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 50**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.60 | 12.38 | 0.94 |  | 17.29 | 13.07 | 0.26 |  | 14.66 | 13.23 | 0.21 |  | 21.04 | 15.96 | 0.22 |  | 50.88 | 16.42 | 0.82 |
| P-I | 0.12 | 0.17 | 0.10 |  | 0.11 | 0.15 | 0.10 |  | 0.11 | 0.14 | 0.10 |  | -0.01 | 0.19 | 0.03 |  | -0.01 | 0.22 | 0.02 |
| P-II | 0.00 | 0.17 | 0.04 |  | 0.00 | 0.15 | 0.04 |  | 0.01 | 0.15 | 0.05 |  | 0.00 | 0.19 | 0.03 |  | -0.00 | 0.23 | 0.04 |
| Pre-test score |  |  |  |  | 0.60 | 0.15 | 0.97 |  | 0.60 | 0.15 | 0.98 |  | 0.59 | 0.15 | 0.98 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.60 | 0.43 |  | -7.55 | 21.88 | 0.07 |  | -9.22 | 25.54 | 0.07 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.29 | 0.11 |  | 0.27 | 0.35 | 0.12 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.32 | 0.06 |  | 0.01 | 0.36 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.46 | 11.59 | 0.06 |  | 17.29 | 13.07 | 0.26 |  | 14.66 | 13.23 | 0.21 |  | 21.04 | 15.96 | 0.22 |  | 0.52 | 15.78 | 0.05 |
| P-I | 0.10 | 0.16 | 0.08 |  | 0.11 | 0.15 | 0.10 |  | 0.11 | 0.14 | 0.10 |  | -0.01 | 0.19 | 0.03 |  | -0.00 | 0.21 | 0.04 |
| P-II | 0.00 | 0.16 | 0.04 |  | 0.00 | 0.15 | 0.04 |  | 0.01 | 0.15 | 0.05 |  | 0.00 | 0.19 | 0.03 |  | 0.00 | 0.22 | 0.04 |
| Pre-test score |  |  |  |  | -0.40 | 0.15 | 0.73 |  | -0.40 | 0.15 | 0.76 |  | -0.41 | 0.15 | 0.75 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.60 | 0.43 |  | -7.55 | 21.88 | 0.07 |  | -6.38 | 23.63 | 0.06 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.29 | 0.11 |  | 0.22 | 0.32 | 0.10 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.32 | 0.06 |  | 0.01 | 0.34 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.87 | 25.64 | 0.05 |  | 49.49 | 32.12 | 0.40 |  | 44.40 | 32.09 | 0.34 |  | 57.49 | 37.48 | 0.34 |  | 3.28 | 35.12 | 0.04 |
| P-I | 0.21 | 0.35 | 0.07 |  | 0.23 | 0.31 | 0.08 |  | 0.23 | 0.31 | 0.10 |  | -0.02 | 0.41 | 0.03 |  | -0.01 | 0.48 | 0.03 |
| P-II | 0.01 | 0.37 | 0.05 |  | 0.01 | 0.32 | 0.04 |  | 0.01 | 0.32 | 0.05 |  | 0.00 | 0.42 | 0.03 |  | 0.01 | 0.50 | 0.05 |
| Pre-test score |  |  |  |  | -1.07 | 0.42 | 0.84 |  | -1.07 | 0.42 | 0.85 |  | -1.07 | 0.42 | 0.85 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.71 | 7.80 | 0.38 |  | -16.14 | 47.38 | 0.06 |  | -13.21 | 53.06 | 0.05 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.50 | 0.64 | 0.10 |  | 0.44 | 0.72 | 0.09 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.02 | 0.69 | 0.06 |  | 0.01 | 0.76 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -5.58 | 10.26 | 0.06 |  | -5.63 | 10.55 | 0.03 |  | -8.26 | 11.04 | 0.06 |  | -1.88 | 14.23 | 0.02 |  | -2.17 | 13.60 | 0.04 |
| P-I | 0.11 | 0.14 | 0.10 |  | 0.11 | 0.15 | 0.10 |  | 0.11 | 0.14 | 0.10 |  | -0.01 | 0.19 | 0.03 |  | -0.01 | 0.19 | 0.03 |
| P-II | 0.00 | 0.15 | 0.04 |  | 0.00 | 0.15 | 0.04 |  | 0.01 | 0.15 | 0.05 |  | 0.00 | 0.19 | 0.03 |  | 0.00 | 0.19 | 0.03 |
| Pre-test score |  |  |  |  | -0.00 | 0.04 | 0.00 |  | -0.00 | 0.06 | 0.00 |  | -0.01 | 0.07 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.60 | 0.43 |  | -7.55 | 21.88 | 0.07 |  | -7.29 | 21.48 | 0.07 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.29 | 0.11 |  | 0.24 | 0.29 | 0.11 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.32 | 0.06 |  | 0.01 | 0.31 | 0.06 |

Table 2: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 100**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.52 | 8.33 | 1.00 |  | 17.59 | 9.17 | 0.50 |  | 15.17 | 9.14 | 0.41 |  | 20.97 | 10.53 | 0.46 |  | 50.47 | 10.43 | 0.99 |
| P-I | 0.13 | 0.12 | 0.18 |  | 0.11 | 0.10 | 0.18 |  | 0.11 | 0.10 | 0.20 |  | -0.00 | 0.12 | 0.02 |  | 0.00 | 0.14 | 0.02 |
| P-II | -0.01 | 0.12 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.13 | 0.03 |  | -0.00 | 0.15 | 0.04 |
| Pre-test score |  |  |  |  | 0.60 | 0.11 | 1.00 |  | 0.60 | 0.10 | 1.00 |  | 0.59 | 0.10 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 2.62 | 0.62 |  | -6.70 | 14.36 | 0.07 |  | -8.24 | 17.27 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.20 | 0.20 |  | 0.26 | 0.24 | 0.20 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.20 | 0.05 |  | -0.01 | 0.23 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.10 | 7.74 | 0.05 |  | 17.59 | 9.17 | 0.50 |  | 15.17 | 9.14 | 0.41 |  | 20.97 | 10.53 | 0.46 |  | 0.62 | 10.26 | 0.03 |
| P-I | 0.10 | 0.11 | 0.14 |  | 0.11 | 0.10 | 0.18 |  | 0.11 | 0.10 | 0.20 |  | -0.00 | 0.12 | 0.02 |  | -0.00 | 0.14 | 0.03 |
| P-II | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.13 | 0.03 |  | -0.00 | 0.15 | 0.04 |
| Pre-test score |  |  |  |  | -0.40 | 0.11 | 0.96 |  | -0.40 | 0.10 | 0.96 |  | -0.41 | 0.10 | 0.96 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 2.62 | 0.62 |  | -6.70 | 14.36 | 0.07 |  | -5.74 | 15.24 | 0.05 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.20 | 0.20 |  | 0.21 | 0.21 | 0.14 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.20 | 0.05 |  | 0.00 | 0.22 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.28 | 17.26 | 0.04 |  | 49.41 | 22.00 | 0.69 |  | 44.67 | 21.85 | 0.61 |  | 56.68 | 24.87 | 0.62 |  | 3.38 | 22.85 | 0.03 |
| P-I | 0.20 | 0.25 | 0.13 |  | 0.23 | 0.22 | 0.18 |  | 0.23 | 0.22 | 0.20 |  | -0.00 | 0.27 | 0.02 |  | -0.00 | 0.32 | 0.03 |
| P-II | -0.00 | 0.25 | 0.05 |  | -0.01 | 0.22 | 0.05 |  | -0.01 | 0.22 | 0.05 |  | -0.00 | 0.29 | 0.03 |  | -0.00 | 0.33 | 0.04 |
| Pre-test score |  |  |  |  | -1.06 | 0.29 | 0.98 |  | -1.06 | 0.29 | 0.98 |  | -1.07 | 0.29 | 0.98 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.35 | 5.62 | 0.54 |  | -14.50 | 31.16 | 0.06 |  | -11.97 | 34.49 | 0.06 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.48 | 0.43 | 0.17 |  | 0.42 | 0.47 | 0.12 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.44 | 0.05 |  | 0.00 | 0.49 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -5.35 | 7.14 | 0.08 |  | -5.24 | 7.16 | 0.03 |  | -7.66 | 7.30 | 0.08 |  | -1.87 | 9.26 | 0.02 |  | -2.21 | 9.00 | 0.03 |
| P-I | 0.11 | 0.10 | 0.18 |  | 0.11 | 0.10 | 0.18 |  | 0.11 | 0.10 | 0.20 |  | -0.00 | 0.12 | 0.02 |  | -0.00 | 0.12 | 0.02 |
| P-II | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.13 | 0.03 |  | -0.00 | 0.13 | 0.04 |
| Pre-test score |  |  |  |  | -0.00 | 0.02 | 0.00 |  | -0.00 | 0.03 | 0.00 |  | -0.01 | 0.04 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 2.62 | 0.62 |  | -6.70 | 14.36 | 0.07 |  | -6.61 | 14.19 | 0.06 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.20 | 0.20 |  | 0.23 | 0.19 | 0.20 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.20 | 0.05 |  | -0.00 | 0.20 | 0.05 |

Table 3: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 150**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.14 | 6.97 | 1.00 |  | 17.16 | 7.19 | 0.65 |  | 14.71 | 7.14 | 0.54 |  | 20.59 | 8.17 | 0.60 |  | 50.21 | 8.62 | 1.00 |
| P-I | 0.14 | 0.10 | 0.29 |  | 0.12 | 0.08 | 0.27 |  | 0.12 | 0.08 | 0.30 |  | -0.00 | 0.10 | 0.02 |  | 0.00 | 0.12 | 0.04 |
| P-II | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.04 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.11 | 0.02 |
| Pre-test score |  |  |  |  | 0.60 | 0.08 | 1.00 |  | 0.60 | 0.08 | 1.00 |  | 0.59 | 0.08 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 2.08 | 0.77 |  | -6.73 | 12.00 | 0.10 |  | -8.33 | 14.02 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.17 | 0.29 |  | 0.27 | 0.20 | 0.30 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.17 | 0.05 |  | -0.01 | 0.19 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.45 | 6.35 | 0.06 |  | 17.16 | 7.19 | 0.65 |  | 14.71 | 7.14 | 0.54 |  | 20.59 | 8.17 | 0.60 |  | 0.28 | 8.12 | 0.03 |
| P-I | 0.10 | 0.09 | 0.20 |  | 0.12 | 0.08 | 0.27 |  | 0.12 | 0.08 | 0.30 |  | -0.00 | 0.10 | 0.02 |  | -0.00 | 0.11 | 0.03 |
| P-II | 0.00 | 0.09 | 0.05 |  | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.04 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.11 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.08 | 0.99 |  | -0.40 | 0.08 | 1.00 |  | -0.41 | 0.08 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 2.08 | 0.77 |  | -6.73 | 12.00 | 0.10 |  | -5.61 | 12.92 | 0.07 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.17 | 0.29 |  | 0.22 | 0.18 | 0.22 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.17 | 0.05 |  | -0.01 | 0.18 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.92 | 14.34 | 0.06 |  | 48.37 | 17.56 | 0.84 |  | 43.60 | 17.34 | 0.78 |  | 55.71 | 19.35 | 0.80 |  | 2.73 | 18.10 | 0.04 |
| P-I | 0.21 | 0.20 | 0.17 |  | 0.24 | 0.18 | 0.25 |  | 0.25 | 0.18 | 0.28 |  | 0.00 | 0.23 | 0.03 |  | -0.00 | 0.25 | 0.04 |
| P-II | 0.00 | 0.20 | 0.04 |  | -0.00 | 0.18 | 0.05 |  | -0.00 | 0.18 | 0.05 |  | 0.01 | 0.22 | 0.02 |  | 0.01 | 0.26 | 0.03 |
| Pre-test score |  |  |  |  | -1.06 | 0.23 | 1.00 |  | -1.05 | 0.23 | 1.00 |  | -1.06 | 0.23 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.28 | 4.43 | 0.70 |  | -14.44 | 26.42 | 0.10 |  | -11.66 | 29.23 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.49 | 0.36 | 0.27 |  | 0.43 | 0.41 | 0.18 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.36 | 0.05 |  | -0.01 | 0.40 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -5.77 | 5.85 | 0.16 |  | -5.61 | 5.82 | 0.07 |  | -8.05 | 5.89 | 0.15 |  | -2.17 | 7.32 | 0.01 |  | -2.53 | 7.13 | 0.03 |
| P-I | 0.12 | 0.08 | 0.27 |  | 0.12 | 0.08 | 0.27 |  | 0.12 | 0.08 | 0.30 |  | -0.00 | 0.10 | 0.02 |  | -0.00 | 0.10 | 0.02 |
| P-II | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.04 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.10 | 0.02 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.03 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 2.08 | 0.77 |  | -6.73 | 12.00 | 0.10 |  | -6.65 | 11.91 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.17 | 0.29 |  | 0.24 | 0.16 | 0.28 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.17 | 0.05 |  | -0.01 | 0.16 | 0.05 |

Table 4: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 200**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.06 | 6.17 | 1.00 |  | 16.79 | 6.35 | 0.75 |  | 14.39 | 6.22 | 0.65 |  | 20.37 | 7.28 | 0.75 |  | 50.24 | 7.46 | 1.00 |
| P-I | 0.14 | 0.08 | 0.36 |  | 0.12 | 0.07 | 0.36 |  | 0.12 | 0.07 | 0.39 |  | 0.01 | 0.09 | 0.03 |  | 0.00 | 0.10 | 0.03 |
| P-II | 0.00 | 0.09 | 0.06 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.09 | 0.02 |  | -0.00 | 0.10 | 0.02 |
| Pre-test score |  |  |  |  | 0.60 | 0.07 | 1.00 |  | 0.60 | 0.07 | 1.00 |  | 0.60 | 0.07 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.81 | 1.82 | 0.85 |  | -6.85 | 10.42 | 0.10 |  | -8.53 | 12.06 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.14 | 0.36 |  | 0.27 | 0.17 | 0.37 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.07 |  | 0.00 | 0.17 | 0.06 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.74 | 5.60 | 0.07 |  | 16.79 | 6.35 | 0.75 |  | 14.39 | 6.22 | 0.65 |  | 20.37 | 7.28 | 0.75 |  | 0.05 | 7.20 | 0.04 |
| P-I | 0.11 | 0.08 | 0.27 |  | 0.12 | 0.07 | 0.36 |  | 0.12 | 0.07 | 0.39 |  | 0.01 | 0.09 | 0.03 |  | 0.01 | 0.10 | 0.04 |
| P-II | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.09 | 0.02 |  | 0.00 | 0.10 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.07 | 1.00 |  | -0.40 | 0.07 | 1.00 |  | -0.40 | 0.07 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.81 | 1.82 | 0.85 |  | -6.85 | 10.42 | 0.10 |  | -5.72 | 11.20 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.14 | 0.36 |  | 0.21 | 0.15 | 0.26 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.07 |  | 0.00 | 0.16 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.63 | 12.68 | 0.06 |  | 46.84 | 29.17 | 0.92 |  | 42.20 | 30.06 | 0.88 |  | 54.72 | 28.75 | 0.89 |  | 2.18 | 16.69 | 0.04 |
| P-I | 0.22 | 0.18 | 0.24 |  | 0.25 | 0.16 | 0.34 |  | 0.25 | 0.16 | 0.36 |  | 0.01 | 0.20 | 0.04 |  | 0.02 | 0.24 | 0.04 |
| P-II | 0.01 | 0.18 | 0.05 |  | 0.01 | 0.16 | 0.06 |  | 0.01 | 0.16 | 0.06 |  | -0.00 | 0.20 | 0.02 |  | 0.00 | 0.23 | 0.03 |
| Pre-test score |  |  |  |  | -1.03 | 0.47 | 1.00 |  | -1.04 | 0.47 | 1.00 |  | -1.04 | 0.48 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.30 | 4.54 | 0.78 |  | -15.17 | 23.16 | 0.11 |  | -11.90 | 25.28 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.48 | 0.31 | 0.34 |  | 0.41 | 0.34 | 0.22 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.33 | 0.06 |  | 0.01 | 0.36 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.01 | 5.25 | 0.22 |  | -5.87 | 5.26 | 0.10 |  | -8.26 | 5.26 | 0.23 |  | -2.29 | 6.52 | 0.02 |  | -2.69 | 6.34 | 0.04 |
| P-I | 0.12 | 0.07 | 0.36 |  | 0.12 | 0.07 | 0.36 |  | 0.12 | 0.07 | 0.39 |  | 0.01 | 0.09 | 0.03 |  | 0.01 | 0.09 | 0.03 |
| P-II | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.09 | 0.02 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.81 | 1.82 | 0.85 |  | -6.85 | 10.42 | 0.10 |  | -6.78 | 10.38 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.14 | 0.36 |  | 0.23 | 0.14 | 0.36 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.07 |  | 0.00 | 0.15 | 0.07 |

Table 5: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 250**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.85 | 5.18 | 1.00 |  | 16.92 | 5.52 | 0.86 |  | 14.54 | 5.36 | 0.76 |  | 20.75 | 6.22 | 0.86 |  | 50.51 | 6.20 | 1.00 |
| P-I | 0.14 | 0.07 | 0.43 |  | 0.12 | 0.06 | 0.44 |  | 0.12 | 0.06 | 0.46 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.09 | 0.03 |
| P-II | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | 0.60 | 0.06 | 1.00 |  | 0.60 | 0.06 | 1.00 |  | 0.59 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 1.66 | 0.92 |  | -7.22 | 9.01 | 0.14 |  | -9.37 | 10.78 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.13 | 0.48 |  | 0.28 | 0.15 | 0.50 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.14 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.62 | 4.68 | 0.06 |  | 16.92 | 5.52 | 0.86 |  | 14.54 | 5.36 | 0.76 |  | 20.75 | 6.22 | 0.86 |  | 0.26 | 6.08 | 0.03 |
| P-I | 0.11 | 0.07 | 0.32 |  | 0.12 | 0.06 | 0.44 |  | 0.12 | 0.06 | 0.46 |  | -0.00 | 0.08 | 0.02 |  | 0.00 | 0.09 | 0.04 |
| P-II | 0.00 | 0.07 | 0.04 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.06 | 1.00 |  | -0.40 | 0.06 | 1.00 |  | -0.41 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 1.66 | 0.92 |  | -7.22 | 9.01 | 0.14 |  | -5.78 | 9.68 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.13 | 0.48 |  | 0.21 | 0.13 | 0.30 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.13 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.14 | 10.65 | 0.04 |  | 48.34 | 13.53 | 0.97 |  | 43.71 | 13.13 | 0.94 |  | 56.68 | 14.87 | 0.96 |  | 2.84 | 13.70 | 0.03 |
| P-I | 0.21 | 0.15 | 0.28 |  | 0.24 | 0.13 | 0.40 |  | 0.25 | 0.13 | 0.42 |  | -0.00 | 0.17 | 0.03 |  | 0.00 | 0.20 | 0.04 |
| P-II | 0.01 | 0.15 | 0.04 |  | 0.01 | 0.14 | 0.05 |  | 0.00 | 0.14 | 0.04 |  | 0.00 | 0.16 | 0.02 |  | 0.00 | 0.19 | 0.03 |
| Pre-test score |  |  |  |  | -1.06 | 0.18 | 1.00 |  | -1.06 | 0.17 | 1.00 |  | -1.07 | 0.17 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.27 | 3.57 | 0.87 |  | -15.80 | 19.68 | 0.13 |  | -12.03 | 22.00 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.50 | 0.28 | 0.42 |  | 0.42 | 0.31 | 0.26 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.26 | 0.04 |  | 0.01 | 0.30 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.03 | 4.30 | 0.24 |  | -5.85 | 4.28 | 0.12 |  | -8.24 | 4.31 | 0.27 |  | -2.03 | 5.42 | 0.02 |  | -2.47 | 5.28 | 0.03 |
| P-I | 0.12 | 0.06 | 0.44 |  | 0.12 | 0.06 | 0.44 |  | 0.12 | 0.06 | 0.46 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.08 | 0.03 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.78 | 1.66 | 0.92 |  | -7.22 | 9.01 | 0.14 |  | -7.15 | 8.96 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.13 | 0.48 |  | 0.24 | 0.12 | 0.47 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.12 | 0.05 |

Table 6: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 300**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.74 | 4.95 | 1.00 |  | 16.68 | 5.17 | 0.90 |  | 14.29 | 5.05 | 0.81 |  | 20.62 | 5.68 | 0.91 |  | 50.51 | 5.96 | 1.00 |
| P-I | 0.14 | 0.07 | 0.53 |  | 0.12 | 0.06 | 0.54 |  | 0.12 | 0.06 | 0.56 |  | 0.00 | 0.07 | 0.02 |  | -0.00 | 0.08 | 0.02 |
| P-II | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | 0.60 | 0.06 | 1.00 |  | 0.60 | 0.06 | 1.00 |  | 0.59 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.80 | 1.48 | 0.96 |  | -7.45 | 8.27 | 0.14 |  | -9.45 | 10.04 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.11 | 0.56 |  | 0.28 | 0.14 | 0.56 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.14 | 0.06 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.86 | 4.64 | 0.12 |  | 16.68 | 5.17 | 0.90 |  | 14.29 | 5.05 | 0.81 |  | 20.62 | 5.68 | 0.91 |  | 0.20 | 5.75 | 0.04 |
| P-I | 0.11 | 0.06 | 0.40 |  | 0.12 | 0.06 | 0.54 |  | 0.12 | 0.06 | 0.56 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.08 | 0.04 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.06 | 1.00 |  | -0.40 | 0.06 | 1.00 |  | -0.41 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.80 | 1.48 | 0.96 |  | -7.45 | 8.27 | 0.14 |  | -6.05 | 8.65 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.11 | 0.56 |  | 0.21 | 0.12 | 0.42 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.12 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.66 | 10.36 | 0.07 |  | 47.67 | 12.81 | 0.98 |  | 43.02 | 12.46 | 0.96 |  | 56.15 | 13.60 | 0.97 |  | 2.62 | 12.78 | 0.04 |
| P-I | 0.22 | 0.14 | 0.34 |  | 0.25 | 0.13 | 0.48 |  | 0.25 | 0.12 | 0.50 |  | 0.00 | 0.15 | 0.02 |  | 0.01 | 0.18 | 0.04 |
| P-II | 0.01 | 0.14 | 0.05 |  | 0.01 | 0.13 | 0.06 |  | 0.01 | 0.13 | 0.05 |  | 0.00 | 0.15 | 0.02 |  | 0.00 | 0.18 | 0.03 |
| Pre-test score |  |  |  |  | -1.06 | 0.16 | 1.00 |  | -1.06 | 0.16 | 1.00 |  | -1.06 | 0.16 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.31 | 3.15 | 0.92 |  | -16.06 | 18.08 | 0.14 |  | -12.44 | 19.52 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.50 | 0.25 | 0.54 |  | 0.43 | 0.28 | 0.34 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.25 | 0.05 |  | 0.01 | 0.28 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.24 | 4.21 | 0.31 |  | -6.08 | 4.21 | 0.18 |  | -8.47 | 4.22 | 0.37 |  | -2.14 | 5.13 | 0.02 |  | -2.51 | 5.02 | 0.04 |
| P-I | 0.12 | 0.06 | 0.54 |  | 0.12 | 0.06 | 0.54 |  | 0.12 | 0.06 | 0.56 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.80 | 1.48 | 0.96 |  | -7.45 | 8.27 | 0.14 |  | -7.40 | 8.24 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.11 | 0.56 |  | 0.24 | 0.11 | 0.56 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.11 | 0.05 |

Table 7: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of***n* = 400**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.85 | 4.29 | 1.00 |  | 16.91 | 4.33 | 0.98 |  | 14.54 | 4.31 | 0.93 |  | 20.75 | 5.01 | 0.97 |  | 50.55 | 5.06 | 1.00 |
| P-I | 0.14 | 0.06 | 0.66 |  | 0.12 | 0.05 | 0.65 |  | 0.12 | 0.05 | 0.67 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | 0.60 | 0.05 | 1.00 |  | 0.60 | 0.05 | 1.00 |  | 0.60 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.74 | 1.32 | 0.98 |  | -7.34 | 7.18 | 0.19 |  | -9.37 | 8.38 | 0.21 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.10 | 0.67 |  | 0.27 | 0.12 | 0.67 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.10 | 0.06 |  | 0.01 | 0.12 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.47 | 3.84 | 0.10 |  | 16.91 | 4.33 | 0.98 |  | 14.54 | 4.31 | 0.93 |  | 20.75 | 5.01 | 0.97 |  | 0.50 | 5.02 | 0.04 |
| P-I | 0.10 | 0.05 | 0.48 |  | 0.12 | 0.05 | 0.65 |  | 0.12 | 0.05 | 0.67 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.07 | 0.03 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.07 | 0.04 |
| Pre-test score |  |  |  |  | -0.40 | 0.05 | 1.00 |  | -0.40 | 0.05 | 1.00 |  | -0.40 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.74 | 1.32 | 0.98 |  | -7.34 | 7.18 | 0.19 |  | -5.97 | 7.73 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.10 | 0.67 |  | 0.21 | 0.10 | 0.48 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.10 | 0.06 |  | 0.01 | 0.11 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.82 | 8.65 | 0.06 |  | 48.21 | 10.67 | 1.00 |  | 43.59 | 10.56 | 0.99 |  | 56.51 | 11.97 | 1.00 |  | 3.31 | 11.22 | 0.04 |
| P-I | 0.21 | 0.12 | 0.39 |  | 0.24 | 0.11 | 0.59 |  | 0.24 | 0.11 | 0.63 |  | 0.00 | 0.13 | 0.03 |  | 0.00 | 0.16 | 0.04 |
| P-II | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.11 | 0.05 |  | 0.00 | 0.11 | 0.04 |  | -0.00 | 0.13 | 0.02 |  | -0.00 | 0.16 | 0.04 |
| Pre-test score |  |  |  |  | -1.06 | 0.13 | 1.00 |  | -1.06 | 0.13 | 1.00 |  | -1.06 | 0.13 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.20 | 2.84 | 0.96 |  | -15.91 | 15.52 | 0.19 |  | -12.34 | 17.33 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.49 | 0.21 | 0.62 |  | 0.42 | 0.24 | 0.41 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.02 | 0.21 | 0.06 |  | 0.02 | 0.25 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -5.99 | 3.58 | 0.36 |  | -5.80 | 3.53 | 0.21 |  | -8.17 | 3.57 | 0.46 |  | -1.95 | 4.47 | 0.02 |  | -2.34 | 4.36 | 0.05 |
| P-I | 0.12 | 0.05 | 0.65 |  | 0.12 | 0.05 | 0.65 |  | 0.12 | 0.05 | 0.67 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.02 |
| P-II | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.74 | 1.32 | 0.98 |  | -7.34 | 7.18 | 0.19 |  | -7.29 | 7.15 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.24 | 0.10 | 0.67 |  | 0.23 | 0.10 | 0.66 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.10 | 0.06 |  | 0.01 | 0.10 | 0.06 |

Table 8: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .60**, and a sample size of ***n* = 500**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.18 | 3.76 | 1.00 |  | 17.03 | 3.82 | 0.99 |  | 14.62 | 3.76 | 0.97 |  | 20.66 | 4.36 | 0.99 |  | 50.71 | 4.46 | 1.00 |
| P-I | 0.14 | 0.05 | 0.73 |  | 0.12 | 0.04 | 0.73 |  | 0.12 | 0.04 | 0.76 |  | 0.00 | 0.05 | 0.02 |  | -0.00 | 0.06 | 0.02 |
| P-II | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.02 |  | -0.00 | 0.06 | 0.02 |
| Pre-test score |  |  |  |  | 0.60 | 0.05 | 1.00 |  | 0.60 | 0.04 | 1.00 |  | 0.60 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 1.12 | 1.00 |  | -6.97 | 6.25 | 0.18 |  | -9.18 | 7.18 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.09 | 0.76 |  | 0.28 | 0.10 | 0.76 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.05 |  | 0.00 | 0.10 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.34 | 3.46 | 0.10 |  | 17.03 | 3.82 | 0.99 |  | 14.62 | 3.76 | 0.97 |  | 20.66 | 4.36 | 0.99 |  | 0.36 | 4.39 | 0.03 |
| P-I | 0.10 | 0.05 | 0.58 |  | 0.12 | 0.04 | 0.73 |  | 0.12 | 0.04 | 0.76 |  | 0.00 | 0.05 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| P-II | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.05 | 1.00 |  | -0.40 | 0.04 | 1.00 |  | -0.40 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 1.12 | 1.00 |  | -6.97 | 6.25 | 0.18 |  | -5.49 | 6.84 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.09 | 0.76 |  | 0.21 | 0.09 | 0.59 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.05 |  | -0.00 | 0.09 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.55 | 7.87 | 0.06 |  | 48.90 | 11.02 | 1.00 |  | 44.22 | 10.83 | 1.00 |  | 56.64 | 11.56 | 1.00 |  | 2.85 | 9.90 | 0.03 |
| P-I | 0.21 | 0.10 | 0.48 |  | 0.24 | 0.10 | 0.68 |  | 0.24 | 0.09 | 0.70 |  | 0.00 | 0.12 | 0.02 |  | 0.01 | 0.14 | 0.03 |
| P-II | -0.00 | 0.11 | 0.04 |  | -0.00 | 0.10 | 0.04 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.12 | 0.02 |  | 0.00 | 0.13 | 0.03 |
| Pre-test score |  |  |  |  | -1.06 | 0.16 | 1.00 |  | -1.06 | 0.15 | 1.00 |  | -1.07 | 0.15 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.26 | 2.43 | 0.99 |  | -14.86 | 13.82 | 0.19 |  | -10.95 | 15.59 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.48 | 0.19 | 0.71 |  | 0.41 | 0.22 | 0.48 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.19 | 0.05 |  | -0.00 | 0.21 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -5.77 | 3.19 | 0.43 |  | -5.59 | 3.15 | 0.26 |  | -8.00 | 3.18 | 0.55 |  | -1.97 | 3.91 | 0.03 |  | -2.35 | 3.80 | 0.05 |
| P-I | 0.12 | 0.04 | 0.73 |  | 0.12 | 0.04 | 0.73 |  | 0.12 | 0.04 | 0.76 |  | 0.00 | 0.05 | 0.02 |  | 0.00 | 0.05 | 0.02 |
| P-II | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.02 |  | -0.00 | 0.05 | 0.02 |
| Pre-test score |  |  |  |  | -0.00 | 0.01 | 0.00 |  | -0.00 | 0.01 | 0.00 |  | -0.01 | 0.01 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 4.77 | 1.12 | 1.00 |  | -6.97 | 6.25 | 0.18 |  | -6.92 | 6.24 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.23 | 0.09 | 0.76 |  | 0.23 | 0.09 | 0.76 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.05 |  | 0.00 | 0.09 | 0.05 |

Table 9: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 50**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 46.15 | 12.44 | 0.94 |  | 11.67 | 13.22 | 0.18 |  | 9.22 | 12.79 | 0.14 |  | 15.66 | 14.64 | 0.15 |  | 50.89 | 15.67 | 0.84 |
| P-I | 0.15 | 0.18 | 0.13 |  | 0.13 | 0.14 | 0.14 |  | 0.13 | 0.14 | 0.14 |  | 0.00 | 0.18 | 0.04 |  | -0.00 | 0.21 | 0.03 |
| P-II | -0.01 | 0.17 | 0.04 |  | -0.01 | 0.14 | 0.04 |  | -0.01 | 0.13 | 0.04 |  | -0.00 | 0.18 | 0.02 |  | -0.00 | 0.22 | 0.03 |
| Pre-test score |  |  |  |  | 0.71 | 0.15 | 1.00 |  | 0.70 | 0.14 | 1.00 |  | 0.70 | 0.14 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.47 | 0.46 |  | -7.60 | 20.01 | 0.06 |  | -9.82 | 25.75 | 0.07 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.26 | 0.29 | 0.15 |  | 0.31 | 0.37 | 0.14 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.28 | 0.06 |  | -0.01 | 0.35 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.84 | 10.93 | 0.06 |  | 11.67 | 13.22 | 0.18 |  | 9.22 | 12.79 | 0.14 |  | 15.66 | 14.64 | 0.15 |  | 0.30 | 13.47 | 0.04 |
| P-I | 0.12 | 0.15 | 0.13 |  | 0.13 | 0.14 | 0.14 |  | 0.13 | 0.14 | 0.14 |  | 0.00 | 0.18 | 0.04 |  | 0.01 | 0.19 | 0.04 |
| P-II | -0.01 | 0.15 | 0.05 |  | -0.01 | 0.14 | 0.04 |  | -0.01 | 0.13 | 0.04 |  | -0.00 | 0.18 | 0.02 |  | -0.00 | 0.19 | 0.03 |
| Pre-test score |  |  |  |  | -0.29 | 0.15 | 0.55 |  | -0.30 | 0.14 | 0.57 |  | -0.30 | 0.14 | 0.57 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.47 | 0.46 |  | -7.60 | 20.01 | 0.06 |  | -6.71 | 20.45 | 0.05 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.26 | 0.29 | 0.15 |  | 0.24 | 0.30 | 0.13 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.28 | 0.06 |  | -0.01 | 0.29 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.13 | 24.61 | 0.06 |  | 36.57 | 31.62 | 0.29 |  | 31.78 | 30.77 | 0.26 |  | 45.25 | 34.25 | 0.25 |  | 2.65 | 30.08 | 0.03 |
| P-I | 0.25 | 0.33 | 0.12 |  | 0.26 | 0.30 | 0.14 |  | 0.27 | 0.30 | 0.14 |  | 0.01 | 0.38 | 0.04 |  | 0.01 | 0.42 | 0.04 |
| P-II | -0.01 | 0.33 | 0.04 |  | -0.01 | 0.30 | 0.04 |  | -0.02 | 0.29 | 0.04 |  | -0.01 | 0.39 | 0.03 |  | -0.01 | 0.43 | 0.04 |
| Pre-test score |  |  |  |  | -0.83 | 0.39 | 0.72 |  | -0.83 | 0.38 | 0.74 |  | -0.84 | 0.38 | 0.73 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.65 | 7.36 | 0.42 |  | -16.81 | 43.25 | 0.06 |  | -14.52 | 45.99 | 0.05 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.54 | 0.63 | 0.15 |  | 0.49 | 0.66 | 0.11 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.61 | 0.05 |  | -0.01 | 0.65 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.02 | 10.02 | 0.08 |  | -6.01 | 10.32 | 0.04 |  | -8.45 | 10.33 | 0.07 |  | -2.02 | 13.04 | 0.02 |  | -2.53 | 12.24 | 0.04 |
| P-I | 0.13 | 0.14 | 0.14 |  | 0.13 | 0.14 | 0.14 |  | 0.13 | 0.14 | 0.14 |  | 0.00 | 0.18 | 0.04 |  | 0.00 | 0.17 | 0.03 |
| P-II | -0.01 | 0.14 | 0.05 |  | -0.01 | 0.14 | 0.04 |  | -0.01 | 0.13 | 0.04 |  | -0.00 | 0.18 | 0.02 |  | -0.00 | 0.17 | 0.03 |
| Pre-test score |  |  |  |  | -0.00 | 0.03 | 0.00 |  | -0.00 | 0.06 | 0.00 |  | -0.01 | 0.07 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.00 | 3.47 | 0.46 |  | -7.60 | 20.01 | 0.06 |  | -7.41 | 19.49 | 0.06 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.26 | 0.29 | 0.15 |  | 0.25 | 0.28 | 0.15 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.28 | 0.06 |  | -0.01 | 0.28 | 0.05 |

Table 10: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 100**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.16 | 8.83 | 1.00 |  | 11.59 | 8.96 | 0.30 |  | 8.97 | 8.62 | 0.22 |  | 15.66 | 9.80 | 0.31 |  | 50.14 | 10.39 | 0.99 |
| P-I | 0.16 | 0.13 | 0.25 |  | 0.13 | 0.10 | 0.27 |  | 0.13 | 0.09 | 0.28 |  | -0.00 | 0.11 | 0.02 |  | 0.00 | 0.15 | 0.03 |
| P-II | 0.00 | 0.11 | 0.03 |  | -0.00 | 0.10 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | 0.00 | 0.12 | 0.03 |  | 0.01 | 0.14 | 0.02 |
| Pre-test score |  |  |  |  | 0.70 | 0.10 | 1.00 |  | 0.70 | 0.10 | 1.00 |  | 0.69 | 0.10 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 2.53 | 0.71 |  | -7.71 | 13.76 | 0.09 |  | -10.18 | 17.21 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.19 | 0.29 |  | 0.32 | 0.25 | 0.28 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.19 | 0.05 |  | -0.01 | 0.23 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.98 | 7.59 | 0.08 |  | 11.59 | 8.96 | 0.30 |  | 8.97 | 8.62 | 0.22 |  | 15.66 | 9.80 | 0.31 |  | 0.38 | 9.54 | 0.04 |
| P-I | 0.12 | 0.10 | 0.22 |  | 0.13 | 0.10 | 0.27 |  | 0.13 | 0.09 | 0.28 |  | -0.00 | 0.11 | 0.02 |  | -0.00 | 0.13 | 0.03 |
| P-II | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | 0.00 | 0.12 | 0.03 |  | 0.00 | 0.13 | 0.04 |
| Pre-test score |  |  |  |  | -0.30 | 0.10 | 0.84 |  | -0.30 | 0.10 | 0.86 |  | -0.31 | 0.10 | 0.88 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 2.53 | 0.71 |  | -7.71 | 13.76 | 0.09 |  | -6.69 | 14.59 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.19 | 0.29 |  | 0.25 | 0.20 | 0.23 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.19 | 0.05 |  | -0.01 | 0.20 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.16 | 16.78 | 0.06 |  | 36.37 | 21.44 | 0.51 |  | 31.31 | 20.67 | 0.43 |  | 45.11 | 22.94 | 0.50 |  | 2.82 | 21.02 | 0.04 |
| P-I | 0.25 | 0.22 | 0.19 |  | 0.28 | 0.21 | 0.25 |  | 0.28 | 0.20 | 0.26 |  | -0.00 | 0.25 | 0.03 |  | -0.00 | 0.28 | 0.02 |
| P-II | -0.01 | 0.23 | 0.05 |  | -0.01 | 0.21 | 0.04 |  | -0.01 | 0.20 | 0.04 |  | 0.01 | 0.26 | 0.02 |  | 0.01 | 0.30 | 0.03 |
| Pre-test score |  |  |  |  | -0.84 | 0.27 | 0.94 |  | -0.84 | 0.27 | 0.94 |  | -0.85 | 0.26 | 0.95 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.09 | 5.47 | 0.65 |  | -16.57 | 30.11 | 0.09 |  | -13.84 | 32.91 | 0.08 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.56 | 0.41 | 0.27 |  | 0.51 | 0.44 | 0.18 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.03 | 0.41 | 0.05 |  | -0.03 | 0.45 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.54 | 7.00 | 0.16 |  | -6.39 | 7.03 | 0.07 |  | -9.00 | 6.90 | 0.15 |  | -2.32 | 8.76 | 0.02 |  | -2.80 | 8.36 | 0.03 |
| P-I | 0.13 | 0.10 | 0.27 |  | 0.13 | 0.10 | 0.27 |  | 0.13 | 0.09 | 0.28 |  | -0.00 | 0.11 | 0.02 |  | -0.00 | 0.11 | 0.02 |
| P-II | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | 0.00 | 0.12 | 0.03 |  | 0.00 | 0.12 | 0.03 |
| Pre-test score |  |  |  |  | -0.00 | 0.02 | 0.00 |  | -0.00 | 0.04 | 0.00 |  | -0.01 | 0.04 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 2.53 | 0.71 |  | -7.71 | 13.76 | 0.09 |  | -7.53 | 13.62 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.19 | 0.29 |  | 0.27 | 0.19 | 0.28 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.19 | 0.05 |  | -0.01 | 0.19 | 0.05 |

Table 11: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 150**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.83 | 7.14 | 1.00 |  | 11.23 | 7.17 | 0.40 |  | 8.64 | 7.02 | 0.28 |  | 15.56 | 7.89 | 0.43 |  | 50.09 | 8.94 | 1.00 |
| P-I | 0.16 | 0.10 | 0.39 |  | 0.13 | 0.08 | 0.39 |  | 0.13 | 0.08 | 0.42 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.13 | 0.03 |
| P-II | 0.00 | 0.10 | 0.05 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.07 |  | 0.00 | 0.09 | 0.02 |  | 0.00 | 0.12 | 0.03 |
| Pre-test score |  |  |  |  | 0.70 | 0.08 | 1.00 |  | 0.70 | 0.08 | 1.00 |  | 0.69 | 0.08 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.19 | 2.01 | 0.87 |  | -8.17 | 10.95 | 0.12 |  | -10.61 | 13.51 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.15 | 0.40 |  | 0.32 | 0.19 | 0.37 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.04 |  | 0.00 | 0.19 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.21 | 6.15 | 0.09 |  | 11.23 | 7.17 | 0.40 |  | 8.64 | 7.02 | 0.28 |  | 15.56 | 7.89 | 0.43 |  | 0.32 | 7.57 | 0.04 |
| P-I | 0.12 | 0.08 | 0.31 |  | 0.13 | 0.08 | 0.39 |  | 0.13 | 0.08 | 0.42 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.10 | 0.04 |
| P-II | 0.00 | 0.09 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.07 |  | 0.00 | 0.09 | 0.02 |  | -0.00 | 0.10 | 0.02 |
| Pre-test score |  |  |  |  | -0.30 | 0.08 | 0.95 |  | -0.30 | 0.08 | 0.96 |  | -0.31 | 0.08 | 0.97 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.19 | 2.01 | 0.87 |  | -8.17 | 10.95 | 0.12 |  | -7.11 | 11.74 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.15 | 0.40 |  | 0.24 | 0.16 | 0.32 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.04 |  | 0.00 | 0.16 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.75 | 13.77 | 0.07 |  | 35.39 | 17.65 | 0.65 |  | 30.36 | 17.29 | 0.56 |  | 44.75 | 19.14 | 0.66 |  | 2.58 | 16.88 | 0.04 |
| P-I | 0.25 | 0.18 | 0.25 |  | 0.28 | 0.17 | 0.36 |  | 0.28 | 0.16 | 0.39 |  | 0.01 | 0.21 | 0.03 |  | 0.01 | 0.23 | 0.03 |
| P-II | 0.00 | 0.19 | 0.06 |  | 0.00 | 0.18 | 0.06 |  | 0.00 | 0.17 | 0.06 |  | 0.00 | 0.21 | 0.02 |  | -0.00 | 0.23 | 0.02 |
| Pre-test score |  |  |  |  | -0.84 | 0.23 | 0.99 |  | -0.84 | 0.22 | 0.99 |  | -0.85 | 0.22 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.02 | 4.33 | 0.80 |  | -17.66 | 23.70 | 0.12 |  | -14.74 | 26.39 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.55 | 0.32 | 0.36 |  | 0.49 | 0.35 | 0.26 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.32 | 0.04 |  | 0.01 | 0.36 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.77 | 5.77 | 0.23 |  | -6.56 | 5.75 | 0.11 |  | -9.16 | 5.75 | 0.24 |  | -2.23 | 7.01 | 0.02 |  | -2.75 | 6.80 | 0.03 |
| P-I | 0.13 | 0.08 | 0.39 |  | 0.13 | 0.08 | 0.39 |  | 0.13 | 0.08 | 0.42 |  | 0.00 | 0.10 | 0.02 |  | 0.00 | 0.10 | 0.03 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.07 |  | 0.00 | 0.09 | 0.02 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.03 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.19 | 2.01 | 0.87 |  | -8.17 | 10.95 | 0.12 |  | -8.08 | 10.86 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.15 | 0.40 |  | 0.26 | 0.15 | 0.40 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.15 | 0.04 |  | 0.00 | 0.15 | 0.04 |

Table 12: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 200**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.06 | 5.98 | 1.00 |  | 11.63 | 5.96 | 0.52 |  | 8.97 | 5.79 | 0.37 |  | 16.10 | 6.53 | 0.61 |  | 50.52 | 7.11 | 1.00 |
| P-I | 0.16 | 0.08 | 0.45 |  | 0.13 | 0.06 | 0.47 |  | 0.13 | 0.06 | 0.52 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.10 | 0.02 |
| P-II | 0.00 | 0.09 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.10 | 0.03 |
| Pre-test score |  |  |  |  | 0.70 | 0.07 | 1.00 |  | 0.70 | 0.07 | 1.00 |  | 0.69 | 0.07 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.80 | 0.93 |  | -8.70 | 9.29 | 0.15 |  | -11.22 | 11.60 | 0.17 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.13 | 0.56 |  | 0.32 | 0.17 | 0.50 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.13 | 0.06 |  | 0.01 | 0.17 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.92 | 4.89 | 0.07 |  | 11.63 | 5.96 | 0.52 |  | 8.97 | 5.79 | 0.37 |  | 16.10 | 6.53 | 0.61 |  | 0.78 | 6.35 | 0.03 |
| P-I | 0.12 | 0.07 | 0.39 |  | 0.13 | 0.06 | 0.47 |  | 0.13 | 0.06 | 0.52 |  | -0.00 | 0.08 | 0.02 |  | -0.01 | 0.09 | 0.04 |
| P-II | -0.00 | 0.07 | 0.05 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.09 | 0.03 |
| Pre-test score |  |  |  |  | -0.30 | 0.07 | 0.99 |  | -0.30 | 0.07 | 0.99 |  | -0.31 | 0.07 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.80 | 0.93 |  | -8.70 | 9.29 | 0.15 |  | -7.57 | 9.97 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.13 | 0.56 |  | 0.25 | 0.14 | 0.45 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.14 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.92 | 11.69 | 0.05 |  | 36.70 | 22.43 | 0.79 |  | 31.57 | 22.61 | 0.69 |  | 46.26 | 25.66 | 0.83 |  | 3.67 | 16.39 | 0.04 |
| P-I | 0.24 | 0.16 | 0.32 |  | 0.27 | 0.15 | 0.44 |  | 0.27 | 0.15 | 0.48 |  | -0.01 | 0.20 | 0.03 |  | -0.01 | 0.22 | 0.03 |
| P-II | -0.00 | 0.16 | 0.04 |  | -0.00 | 0.15 | 0.05 |  | -0.00 | 0.14 | 0.05 |  | -0.01 | 0.18 | 0.02 |  | -0.01 | 0.21 | 0.03 |
| Pre-test score |  |  |  |  | -0.85 | 0.31 | 0.99 |  | -0.85 | 0.30 | 0.99 |  | -0.86 | 0.30 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.11 | 3.97 | 0.87 |  | -18.65 | 21.29 | 0.15 |  | -15.58 | 23.85 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.56 | 0.29 | 0.50 |  | 0.51 | 0.32 | 0.38 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.29 | 0.06 |  | 0.01 | 0.32 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.55 | 4.62 | 0.26 |  | -6.32 | 4.58 | 0.13 |  | -8.98 | 4.63 | 0.31 |  | -1.84 | 5.79 | 0.02 |  | -2.35 | 5.66 | 0.04 |
| P-I | 0.13 | 0.06 | 0.47 |  | 0.13 | 0.06 | 0.47 |  | 0.13 | 0.06 | 0.52 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.08 | 0.02 |
| P-II | 0.00 | 0.07 | 0.04 |  | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.06 | 0.04 |  | -0.00 | 0.08 | 0.02 |  | -0.00 | 0.08 | 0.02 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.80 | 0.93 |  | -8.70 | 9.29 | 0.15 |  | -8.60 | 9.24 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.13 | 0.56 |  | 0.27 | 0.13 | 0.56 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.13 | 0.06 |

Table 13: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 250**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.93 | 5.34 | 1.00 |  | 11.33 | 5.45 | 0.58 |  | 8.77 | 5.42 | 0.41 |  | 15.86 | 6.10 | 0.68 |  | 50.42 | 6.28 | 1.00 |
| P-I | 0.16 | 0.08 | 0.57 |  | 0.13 | 0.06 | 0.59 |  | 0.13 | 0.06 | 0.63 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.09 | 0.04 |
| P-II | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | -0.00 | 0.07 | 0.03 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | 0.70 | 0.06 | 1.00 |  | 0.70 | 0.06 | 1.00 |  | 0.69 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.21 | 1.62 | 0.96 |  | -8.55 | 8.27 | 0.17 |  | -10.98 | 10.42 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.11 | 0.64 |  | 0.32 | 0.14 | 0.60 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | -0.00 | 0.14 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.11 | 4.46 | 0.10 |  | 11.33 | 5.45 | 0.58 |  | 8.77 | 5.42 | 0.41 |  | 15.86 | 6.10 | 0.68 |  | 0.64 | 5.82 | 0.04 |
| P-I | 0.12 | 0.06 | 0.47 |  | 0.13 | 0.06 | 0.59 |  | 0.13 | 0.06 | 0.63 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.08 | 0.03 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | -0.00 | 0.07 | 0.03 |  | -0.00 | 0.08 | 0.04 |
| Pre-test score |  |  |  |  | -0.30 | 0.06 | 0.99 |  | -0.30 | 0.06 | 0.99 |  | -0.31 | 0.06 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.21 | 1.62 | 0.96 |  | -8.55 | 8.27 | 0.17 |  | -7.48 | 8.76 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.11 | 0.64 |  | 0.25 | 0.12 | 0.53 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.12 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.57 | 9.79 | 0.07 |  | 35.66 | 12.92 | 0.84 |  | 30.72 | 12.86 | 0.75 |  | 45.29 | 14.31 | 0.89 |  | 3.11 | 12.98 | 0.04 |
| P-I | 0.24 | 0.14 | 0.42 |  | 0.28 | 0.13 | 0.56 |  | 0.28 | 0.12 | 0.59 |  | -0.00 | 0.15 | 0.02 |  | -0.01 | 0.18 | 0.03 |
| P-II | 0.00 | 0.14 | 0.05 |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.16 | 0.04 |  | 0.00 | 0.18 | 0.04 |
| Pre-test score |  |  |  |  | -0.84 | 0.17 | 1.00 |  | -0.84 | 0.17 | 1.00 |  | -0.85 | 0.17 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.05 | 3.46 | 0.93 |  | -18.25 | 17.89 | 0.16 |  | -15.30 | 19.72 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.56 | 0.24 | 0.61 |  | 0.50 | 0.27 | 0.44 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.25 | 0.05 |  | 0.00 | 0.27 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.72 | 4.21 | 0.34 |  | -6.48 | 4.20 | 0.18 |  | -9.04 | 4.26 | 0.42 |  | -1.96 | 5.35 | 0.03 |  | -2.48 | 5.21 | 0.04 |
| P-I | 0.13 | 0.06 | 0.59 |  | 0.13 | 0.06 | 0.59 |  | 0.13 | 0.06 | 0.63 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.07 | 0.02 |
| P-II | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | -0.00 | 0.07 | 0.03 |  | -0.00 | 0.07 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.21 | 1.62 | 0.96 |  | -8.55 | 8.27 | 0.17 |  | -8.46 | 8.23 | 0.16 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.11 | 0.64 |  | 0.27 | 0.11 | 0.64 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.12 | 0.05 |

Table 14: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 300**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 45.36 | 5.12 | 1.00 |  | 11.68 | 4.94 | 0.67 |  | 8.97 | 4.85 | 0.50 |  | 16.02 | 5.57 | 0.78 |  | 50.79 | 6.01 | 1.00 |
| P-I | 0.16 | 0.07 | 0.63 |  | 0.13 | 0.05 | 0.67 |  | 0.13 | 0.05 | 0.72 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.08 | 0.02 |
| P-II | -0.00 | 0.07 | 0.05 |  | -0.00 | 0.06 | 0.04 |  | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.07 | 0.01 |  | -0.00 | 0.08 | 0.02 |
| Pre-test score |  |  |  |  | 0.70 | 0.06 | 1.00 |  | 0.70 | 0.06 | 1.00 |  | 0.69 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.49 | 0.98 |  | -8.39 | 7.55 | 0.20 |  | -11.06 | 9.49 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.10 | 0.74 |  | 0.33 | 0.14 | 0.70 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.13 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -2.88 | 4.05 | 0.09 |  | 11.68 | 4.94 | 0.67 |  | 8.97 | 4.85 | 0.50 |  | 16.02 | 5.57 | 0.78 |  | 0.63 | 5.29 | 0.03 |
| P-I | 0.12 | 0.06 | 0.54 |  | 0.13 | 0.05 | 0.67 |  | 0.13 | 0.05 | 0.72 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.07 | 0.03 |
| P-II | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.06 | 0.04 |  | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.07 | 0.01 |  | -0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | -0.30 | 0.06 | 1.00 |  | -0.30 | 0.06 | 1.00 |  | -0.31 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.49 | 0.98 |  | -8.39 | 7.55 | 0.20 |  | -7.23 | 7.99 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.10 | 0.74 |  | 0.25 | 0.11 | 0.62 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.11 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.13 | 8.87 | 0.07 |  | 36.16 | 11.96 | 0.91 |  | 30.93 | 11.69 | 0.82 |  | 45.44 | 13.18 | 0.93 |  | 3.03 | 11.55 | 0.03 |
| P-I | 0.24 | 0.12 | 0.45 |  | 0.27 | 0.12 | 0.62 |  | 0.27 | 0.11 | 0.66 |  | -0.01 | 0.14 | 0.03 |  | -0.01 | 0.16 | 0.03 |
| P-II | -0.00 | 0.13 | 0.05 |  | -0.00 | 0.12 | 0.04 |  | -0.00 | 0.12 | 0.04 |  | -0.00 | 0.14 | 0.02 |  | -0.00 | 0.16 | 0.02 |
| Pre-test score |  |  |  |  | -0.83 | 0.16 | 1.00 |  | -0.83 | 0.15 | 1.00 |  | -0.85 | 0.15 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.12 | 3.19 | 0.95 |  | -17.94 | 16.27 | 0.19 |  | -14.73 | 17.71 | 0.12 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.56 | 0.22 | 0.70 |  | 0.50 | 0.24 | 0.50 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.23 | 0.04 |  | -0.00 | 0.25 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.44 | 3.90 | 0.37 |  | -6.19 | 3.84 | 0.20 |  | -8.90 | 3.85 | 0.47 |  | -1.85 | 4.88 | 0.02 |  | -2.38 | 4.78 | 0.04 |
| P-I | 0.13 | 0.05 | 0.67 |  | 0.13 | 0.05 | 0.67 |  | 0.13 | 0.05 | 0.72 |  | -0.00 | 0.07 | 0.02 |  | -0.00 | 0.07 | 0.02 |
| P-II | -0.00 | 0.06 | 0.04 |  | -0.00 | 0.06 | 0.04 |  | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.07 | 0.01 |  | -0.00 | 0.07 | 0.01 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.25 | 1.49 | 0.98 |  | -8.39 | 7.55 | 0.20 |  | -8.31 | 7.52 | 0.20 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.10 | 0.74 |  | 0.27 | 0.10 | 0.74 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.10 | 0.04 |

Table 15: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 400**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.84 | 4.25 | 1.00 |  | 11.28 | 4.21 | 0.76 |  | 8.64 | 4.08 | 0.57 |  | 15.56 | 4.81 | 0.88 |  | 50.32 | 5.18 | 1.00 |
| P-I | 0.16 | 0.06 | 0.80 |  | 0.14 | 0.05 | 0.82 |  | 0.14 | 0.04 | 0.85 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.07 | 0.04 |
| P-II | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.06 |  | 0.00 | 0.06 | 0.03 |  | 0.00 | 0.07 | 0.04 |
| Pre-test score |  |  |  |  | 0.70 | 0.05 | 1.00 |  | 0.70 | 0.05 | 1.00 |  | 0.69 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 1.29 | 0.99 |  | -8.11 | 6.61 | 0.24 |  | -10.97 | 8.40 | 0.27 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.09 | 0.85 |  | 0.33 | 0.12 | 0.80 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.05 |  | -0.00 | 0.11 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.14 | 3.49 | 0.15 |  | 11.28 | 4.21 | 0.76 |  | 8.64 | 4.08 | 0.57 |  | 15.56 | 4.81 | 0.88 |  | 0.28 | 4.59 | 0.03 |
| P-I | 0.12 | 0.05 | 0.71 |  | 0.14 | 0.05 | 0.82 |  | 0.14 | 0.04 | 0.85 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.04 |
| P-II | 0.00 | 0.05 | 0.06 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.06 |  | 0.00 | 0.06 | 0.03 |  | 0.00 | 0.06 | 0.04 |
| Pre-test score |  |  |  |  | -0.30 | 0.05 | 1.00 |  | -0.30 | 0.05 | 1.00 |  | -0.31 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 1.29 | 0.99 |  | -8.11 | 6.61 | 0.24 |  | -6.83 | 6.99 | 0.17 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.09 | 0.85 |  | 0.25 | 0.09 | 0.72 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.05 |  | -0.01 | 0.10 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.61 | 7.87 | 0.09 |  | 35.34 | 10.28 | 0.96 |  | 30.25 | 10.05 | 0.92 |  | 44.48 | 11.45 | 0.99 |  | 2.32 | 10.19 | 0.04 |
| P-I | 0.25 | 0.10 | 0.60 |  | 0.28 | 0.10 | 0.79 |  | 0.28 | 0.10 | 0.82 |  | 0.00 | 0.13 | 0.03 |  | 0.00 | 0.14 | 0.04 |
| P-II | 0.00 | 0.11 | 0.06 |  | 0.00 | 0.10 | 0.06 |  | 0.00 | 0.10 | 0.06 |  | 0.01 | 0.13 | 0.04 |  | 0.01 | 0.14 | 0.04 |
| Pre-test score |  |  |  |  | -0.83 | 0.13 | 1.00 |  | -0.83 | 0.13 | 1.00 |  | -0.84 | 0.13 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.07 | 2.77 | 0.99 |  | -17.33 | 14.35 | 0.23 |  | -13.82 | 15.65 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.56 | 0.20 | 0.81 |  | 0.49 | 0.21 | 0.61 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.20 | 0.05 |  | -0.01 | 0.22 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.77 | 3.27 | 0.50 |  | -6.52 | 3.23 | 0.32 |  | -9.16 | 3.23 | 0.65 |  | -2.24 | 4.24 | 0.03 |  | -2.75 | 4.15 | 0.06 |
| P-I | 0.13 | 0.04 | 0.82 |  | 0.14 | 0.05 | 0.82 |  | 0.14 | 0.04 | 0.85 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| P-II | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.06 |  | 0.00 | 0.06 | 0.03 |  | 0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.00 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.22 | 1.29 | 0.99 |  | -8.11 | 6.61 | 0.24 |  | -8.04 | 6.58 | 0.24 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.09 | 0.85 |  | 0.27 | 0.09 | 0.84 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.05 |  | -0.01 | 0.09 | 0.05 |

Table 16: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .70**, and a sample size of ***n* = 500**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.90 | 3.84 | 1.00 |  | 11.42 | 3.69 | 0.88 |  | 8.82 | 3.66 | 0.68 |  | 15.85 | 4.18 | 0.94 |  | 50.42 | 4.47 | 1.00 |
| P-I | 0.16 | 0.05 | 0.86 |  | 0.14 | 0.04 | 0.88 |  | 0.14 | 0.04 | 0.91 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.06 | 0.02 |
| P-II | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.03 |  | 0.00 | 0.06 | 0.02 |
| Pre-test score |  |  |  |  | 0.70 | 0.04 | 1.00 |  | 0.70 | 0.04 | 1.00 |  | 0.69 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.15 | 1.10 | 1.00 |  | -8.34 | 5.90 | 0.30 |  | -11.04 | 7.45 | 0.32 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.08 | 0.92 |  | 0.32 | 0.10 | 0.90 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.07 |  | -0.00 | 0.10 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.05 | 3.14 | 0.16 |  | 11.42 | 3.69 | 0.88 |  | 8.82 | 3.66 | 0.68 |  | 15.85 | 4.18 | 0.94 |  | 0.50 | 4.05 | 0.04 |
| P-I | 0.12 | 0.04 | 0.81 |  | 0.14 | 0.04 | 0.88 |  | 0.14 | 0.04 | 0.91 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.06 | 0.03 |
| P-II | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.03 |  | -0.00 | 0.06 | 0.04 |
| Pre-test score |  |  |  |  | -0.30 | 0.04 | 1.00 |  | -0.30 | 0.04 | 1.00 |  | -0.31 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.15 | 1.10 | 1.00 |  | -8.34 | 5.90 | 0.30 |  | -7.13 | 6.17 | 0.21 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.08 | 0.92 |  | 0.24 | 0.08 | 0.82 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.07 |  | 0.00 | 0.09 | 0.07 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.38 | 6.99 | 0.09 |  | 35.70 | 8.81 | 0.98 |  | 30.69 | 8.71 | 0.96 |  | 45.18 | 9.96 | 0.99 |  | 2.86 | 8.97 | 0.05 |
| P-I | 0.25 | 0.10 | 0.71 |  | 0.28 | 0.09 | 0.87 |  | 0.28 | 0.09 | 0.88 |  | 0.00 | 0.11 | 0.03 |  | 0.00 | 0.12 | 0.03 |
| P-II | -0.00 | 0.10 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.11 | 0.02 |  | -0.00 | 0.13 | 0.04 |
| Pre-test score |  |  |  |  | -0.84 | 0.11 | 1.00 |  | -0.84 | 0.11 | 1.00 |  | -0.85 | 0.11 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 9.93 | 2.36 | 1.00 |  | -17.83 | 12.75 | 0.28 |  | -14.52 | 13.60 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.55 | 0.17 | 0.89 |  | 0.49 | 0.18 | 0.73 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.19 | 0.08 |  | 0.00 | 0.20 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.70 | 2.97 | 0.61 |  | -6.45 | 2.92 | 0.39 |  | -9.05 | 2.99 | 0.76 |  | -2.02 | 3.68 | 0.03 |  | -2.57 | 3.59 | 0.06 |
| P-I | 0.14 | 0.04 | 0.88 |  | 0.14 | 0.04 | 0.88 |  | 0.14 | 0.04 | 0.91 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.05 | 0.03 |
| P-II | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.05 | 0.03 |  | -0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.15 | 1.10 | 1.00 |  | -8.34 | 5.90 | 0.30 |  | -8.27 | 5.87 | 0.29 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.27 | 0.08 | 0.92 |  | 0.27 | 0.08 | 0.92 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.07 |  | 0.00 | 0.09 | 0.07 |

Table 17: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 50**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.66 | 12.50 | 0.93 |  | 5.87 | 12.39 | 0.12 |  | 2.79 | 11.87 | 0.09 |  | 10.88 | 13.68 | 0.12 |  | 50.95 | 14.91 | 0.83 |
| P-I | 0.18 | 0.18 | 0.17 |  | 0.15 | 0.13 | 0.20 |  | 0.16 | 0.12 | 0.21 |  | 0.00 | 0.16 | 0.03 |  | -0.00 | 0.21 | 0.01 |
| P-II | -0.01 | 0.18 | 0.05 |  | -0.00 | 0.14 | 0.06 |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.16 | 0.04 |  | -0.00 | 0.21 | 0.02 |
| Pre-test score |  |  |  |  | 0.80 | 0.15 | 1.00 |  | 0.80 | 0.14 | 1.00 |  | 0.79 | 0.14 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.46 | 3.59 | 0.57 |  | -10.32 | 18.63 | 0.09 |  | -13.38 | 24.21 | 0.07 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.26 | 0.22 |  | 0.38 | 0.36 | 0.18 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.26 | 0.05 |  | -0.01 | 0.35 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.07 | 9.83 | 0.06 |  | 5.87 | 12.39 | 0.12 |  | 2.79 | 11.87 | 0.09 |  | 10.88 | 13.68 | 0.12 |  | 0.36 | 12.73 | 0.05 |
| P-I | 0.15 | 0.13 | 0.18 |  | 0.15 | 0.13 | 0.20 |  | 0.16 | 0.12 | 0.21 |  | 0.00 | 0.16 | 0.03 |  | 0.00 | 0.17 | 0.03 |
| P-II | -0.00 | 0.14 | 0.05 |  | -0.00 | 0.14 | 0.06 |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.16 | 0.04 |  | 0.00 | 0.18 | 0.04 |
| Pre-test score |  |  |  |  | -0.20 | 0.15 | 0.38 |  | -0.20 | 0.14 | 0.40 |  | -0.21 | 0.14 | 0.40 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.46 | 3.59 | 0.57 |  | -10.32 | 18.63 | 0.09 |  | -9.63 | 19.43 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.26 | 0.22 |  | 0.31 | 0.27 | 0.20 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.26 | 0.05 |  | -0.00 | 0.27 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.22 | 21.98 | 0.07 |  | 23.50 | 29.80 | 0.21 |  | 17.51 | 28.84 | 0.17 |  | 34.07 | 32.38 | 0.22 |  | 1.83 | 31.02 | 0.04 |
| P-I | 0.30 | 0.29 | 0.15 |  | 0.32 | 0.28 | 0.18 |  | 0.32 | 0.26 | 0.20 |  | 0.00 | 0.34 | 0.02 |  | 0.01 | 0.39 | 0.03 |
| P-II | -0.00 | 0.31 | 0.05 |  | -0.00 | 0.29 | 0.06 |  | 0.00 | 0.28 | 0.06 |  | 0.01 | 0.36 | 0.04 |  | 0.01 | 0.41 | 0.04 |
| Pre-test score |  |  |  |  | -0.63 | 0.40 | 0.57 |  | -0.63 | 0.39 | 0.59 |  | -0.64 | 0.38 | 0.60 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.52 | 7.75 | 0.52 |  | -21.95 | 40.92 | 0.09 |  | -19.83 | 45.87 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.66 | 0.56 | 0.20 |  | 0.62 | 0.61 | 0.18 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.57 | 0.05 |  | -0.01 | 0.63 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.45 | 9.27 | 0.12 |  | -7.29 | 9.48 | 0.05 |  | -10.37 | 9.39 | 0.11 |  | -2.28 | 12.03 | 0.02 |  | -2.77 | 11.34 | 0.04 |
| P-I | 0.15 | 0.13 | 0.20 |  | 0.15 | 0.13 | 0.20 |  | 0.16 | 0.12 | 0.21 |  | 0.00 | 0.16 | 0.03 |  | 0.00 | 0.15 | 0.03 |
| P-II | -0.00 | 0.14 | 0.06 |  | -0.00 | 0.14 | 0.06 |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.16 | 0.04 |  | 0.00 | 0.16 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.04 | 0.00 |  | -0.01 | 0.06 | 0.00 |  | -0.01 | 0.07 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.46 | 3.59 | 0.57 |  | -10.32 | 18.63 | 0.09 |  | -10.08 | 18.22 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.26 | 0.22 |  | 0.31 | 0.25 | 0.21 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.26 | 0.05 |  | -0.00 | 0.26 | 0.05 |

Table 18: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 100**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.30 | 9.14 | 1.00 |  | 5.81 | 8.33 | 0.13 |  | 2.95 | 8.02 | 0.10 |  | 11.03 | 9.21 | 0.21 |  | 50.98 | 10.85 | 0.99 |
| P-I | 0.18 | 0.13 | 0.33 |  | 0.15 | 0.09 | 0.39 |  | 0.15 | 0.09 | 0.42 |  | 0.00 | 0.11 | 0.03 |  | -0.01 | 0.15 | 0.03 |
| P-II | 0.00 | 0.12 | 0.06 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.11 | 0.04 |  | -0.00 | 0.15 | 0.03 |
| Pre-test score |  |  |  |  | 0.80 | 0.10 | 1.00 |  | 0.80 | 0.09 | 1.00 |  | 0.79 | 0.09 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.49 | 2.52 | 0.80 |  | -10.01 | 12.22 | 0.13 |  | -13.53 | 16.91 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.17 | 0.42 |  | 0.37 | 0.25 | 0.36 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.17 | 0.05 |  | 0.01 | 0.23 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.00 | 6.59 | 0.10 |  | 5.81 | 8.33 | 0.13 |  | 2.95 | 8.02 | 0.10 |  | 11.03 | 9.21 | 0.21 |  | 0.49 | 8.28 | 0.04 |
| P-I | 0.15 | 0.09 | 0.36 |  | 0.15 | 0.09 | 0.39 |  | 0.15 | 0.09 | 0.42 |  | 0.00 | 0.11 | 0.03 |  | 0.00 | 0.12 | 0.04 |
| P-II | -0.00 | 0.09 | 0.05 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.11 | 0.04 |  | -0.00 | 0.12 | 0.04 |
| Pre-test score |  |  |  |  | -0.20 | 0.10 | 0.62 |  | -0.20 | 0.09 | 0.65 |  | -0.21 | 0.09 | 0.66 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.49 | 2.52 | 0.80 |  | -10.01 | 12.22 | 0.13 |  | -9.13 | 12.53 | 0.11 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.17 | 0.42 |  | 0.29 | 0.17 | 0.36 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.17 | 0.05 |  | 0.00 | 0.18 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.07 | 14.33 | 0.08 |  | 22.96 | 19.67 | 0.32 |  | 17.43 | 19.13 | 0.24 |  | 34.08 | 21.46 | 0.40 |  | 2.14 | 18.20 | 0.03 |
| P-I | 0.30 | 0.20 | 0.31 |  | 0.32 | 0.19 | 0.37 |  | 0.32 | 0.18 | 0.41 |  | 0.01 | 0.24 | 0.04 |  | 0.01 | 0.26 | 0.03 |
| P-II | 0.00 | 0.21 | 0.05 |  | 0.00 | 0.20 | 0.05 |  | 0.00 | 0.19 | 0.06 |  | -0.00 | 0.24 | 0.03 |  | 0.00 | 0.26 | 0.04 |
| Pre-test score |  |  |  |  | -0.62 | 0.26 | 0.82 |  | -0.62 | 0.25 | 0.83 |  | -0.63 | 0.25 | 0.85 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.58 | 5.40 | 0.74 |  | -21.23 | 26.67 | 0.13 |  | -18.62 | 28.02 | 0.11 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.63 | 0.36 | 0.39 |  | 0.58 | 0.37 | 0.30 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.37 | 0.05 |  | 0.00 | 0.39 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.53 | 6.44 | 0.22 |  | -7.30 | 6.40 | 0.11 |  | -10.16 | 6.39 | 0.23 |  | -2.09 | 8.04 | 0.03 |  | -2.71 | 7.84 | 0.05 |
| P-I | 0.15 | 0.09 | 0.39 |  | 0.15 | 0.09 | 0.39 |  | 0.15 | 0.09 | 0.42 |  | 0.00 | 0.11 | 0.03 |  | 0.00 | 0.11 | 0.03 |
| P-II | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.11 | 0.04 |  | -0.00 | 0.11 | 0.04 |
| Pre-test score |  |  |  |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.04 | 0.00 |  | -0.01 | 0.04 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.49 | 2.52 | 0.80 |  | -10.01 | 12.22 | 0.13 |  | -9.82 | 12.11 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.17 | 0.42 |  | 0.30 | 0.16 | 0.41 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.17 | 0.05 |  | 0.00 | 0.17 | 0.04 |

Table 19: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 150**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.44 | 6.96 | 1.00 |  | 5.99 | 6.71 | 0.17 |  | 3.08 | 6.59 | 0.11 |  | 10.73 | 7.19 | 0.28 |  | 50.60 | 8.20 | 1.00 |
| P-I | 0.18 | 0.10 | 0.43 |  | 0.15 | 0.07 | 0.54 |  | 0.15 | 0.07 | 0.59 |  | 0.00 | 0.09 | 0.03 |  | -0.00 | 0.12 | 0.03 |
| P-II | 0.00 | 0.10 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.09 | 0.03 |  | -0.00 | 0.12 | 0.02 |
| Pre-test score |  |  |  |  | 0.80 | 0.08 | 1.00 |  | 0.80 | 0.08 | 1.00 |  | 0.79 | 0.07 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.58 | 1.98 | 0.93 |  | -9.15 | 9.54 | 0.15 |  | -12.75 | 13.95 | 0.16 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.13 | 0.59 |  | 0.36 | 0.20 | 0.49 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.14 | 0.05 |  | 0.00 | 0.19 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.89 | 5.38 | 0.10 |  | 5.99 | 6.71 | 0.17 |  | 3.08 | 6.59 | 0.11 |  | 10.73 | 7.19 | 0.28 |  | 0.06 | 6.68 | 0.04 |
| P-I | 0.14 | 0.07 | 0.49 |  | 0.15 | 0.07 | 0.54 |  | 0.15 | 0.07 | 0.59 |  | 0.00 | 0.09 | 0.03 |  | 0.00 | 0.09 | 0.04 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.09 | 0.03 |  | 0.00 | 0.09 | 0.04 |
| Pre-test score |  |  |  |  | -0.20 | 0.08 | 0.78 |  | -0.20 | 0.08 | 0.80 |  | -0.21 | 0.07 | 0.83 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.58 | 1.98 | 0.93 |  | -9.15 | 9.54 | 0.15 |  | -8.24 | 9.75 | 0.13 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.13 | 0.59 |  | 0.28 | 0.13 | 0.52 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.14 | 0.05 |  | -0.01 | 0.14 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.56 | 11.90 | 0.08 |  | 23.54 | 16.01 | 0.44 |  | 17.97 | 15.83 | 0.32 |  | 33.70 | 17.09 | 0.52 |  | 1.59 | 14.95 | 0.04 |
| P-I | 0.29 | 0.16 | 0.42 |  | 0.31 | 0.15 | 0.50 |  | 0.31 | 0.14 | 0.54 |  | 0.00 | 0.19 | 0.03 |  | 0.01 | 0.21 | 0.04 |
| P-II | 0.00 | 0.17 | 0.07 |  | 0.00 | 0.16 | 0.06 |  | 0.00 | 0.16 | 0.06 |  | 0.01 | 0.19 | 0.04 |  | 0.01 | 0.21 | 0.04 |
| Pre-test score |  |  |  |  | -0.62 | 0.21 | 0.94 |  | -0.62 | 0.20 | 0.94 |  | -0.64 | 0.20 | 0.95 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.69 | 4.21 | 0.88 |  | -19.65 | 20.96 | 0.15 |  | -16.95 | 21.90 | 0.11 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.61 | 0.28 | 0.54 |  | 0.57 | 0.30 | 0.45 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.31 | 0.06 |  | -0.01 | 0.32 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.44 | 5.18 | 0.30 |  | -7.24 | 5.20 | 0.14 |  | -10.14 | 5.29 | 0.38 |  | -2.50 | 6.39 | 0.02 |  | -3.10 | 6.10 | 0.04 |
| P-I | 0.15 | 0.07 | 0.54 |  | 0.15 | 0.07 | 0.54 |  | 0.15 | 0.07 | 0.59 |  | 0.00 | 0.09 | 0.03 |  | 0.00 | 0.09 | 0.03 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.09 | 0.03 |  | 0.00 | 0.09 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.03 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.58 | 1.98 | 0.93 |  | -9.15 | 9.54 | 0.15 |  | -9.02 | 9.44 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.13 | 0.59 |  | 0.29 | 0.13 | 0.59 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.14 | 0.05 |  | -0.00 | 0.14 | 0.05 |

Table 20: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 200**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.95 | 6.35 | 1.00 |  | 5.78 | 5.77 | 0.20 |  | 2.95 | 5.50 | 0.11 |  | 11.05 | 6.13 | 0.38 |  | 50.89 | 7.36 | 1.00 |
| P-I | 0.18 | 0.09 | 0.57 |  | 0.15 | 0.06 | 0.66 |  | 0.15 | 0.06 | 0.71 |  | -0.00 | 0.08 | 0.04 |  | -0.00 | 0.10 | 0.03 |
| P-II | 0.00 | 0.09 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.08 | 0.03 |  | -0.00 | 0.10 | 0.03 |
| Pre-test score |  |  |  |  | 0.80 | 0.07 | 1.00 |  | 0.80 | 0.06 | 1.00 |  | 0.79 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.57 | 1.75 | 0.97 |  | -9.91 | 8.32 | 0.21 |  | -13.89 | 11.94 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.75 |  | 0.38 | 0.17 | 0.65 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.06 |  | 0.01 | 0.16 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.00 | 4.61 | 0.14 |  | 5.78 | 5.77 | 0.20 |  | 2.95 | 5.50 | 0.11 |  | 11.05 | 6.13 | 0.38 |  | 0.43 | 5.73 | 0.04 |
| P-I | 0.14 | 0.06 | 0.60 |  | 0.15 | 0.06 | 0.66 |  | 0.15 | 0.06 | 0.71 |  | -0.00 | 0.08 | 0.04 |  | 0.00 | 0.08 | 0.04 |
| P-II | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.08 | 0.03 |  | 0.00 | 0.08 | 0.04 |
| Pre-test score |  |  |  |  | -0.20 | 0.07 | 0.86 |  | -0.20 | 0.06 | 0.89 |  | -0.21 | 0.06 | 0.91 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.57 | 1.75 | 0.97 |  | -9.91 | 8.32 | 0.21 |  | -8.86 | 8.52 | 0.16 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.75 |  | 0.29 | 0.12 | 0.67 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.06 |  | 0.00 | 0.12 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.79 | 10.17 | 0.11 |  | 23.05 | 13.44 | 0.53 |  | 17.63 | 12.92 | 0.36 |  | 34.37 | 14.29 | 0.68 |  | 2.29 | 12.66 | 0.04 |
| P-I | 0.29 | 0.14 | 0.52 |  | 0.31 | 0.13 | 0.64 |  | 0.31 | 0.13 | 0.67 |  | -0.00 | 0.17 | 0.04 |  | 0.00 | 0.18 | 0.04 |
| P-II | 0.01 | 0.14 | 0.05 |  | 0.01 | 0.14 | 0.05 |  | 0.01 | 0.13 | 0.05 |  | -0.00 | 0.16 | 0.03 |  | 0.00 | 0.18 | 0.04 |
| Pre-test score |  |  |  |  | -0.62 | 0.17 | 0.98 |  | -0.62 | 0.17 | 0.98 |  | -0.64 | 0.16 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.67 | 3.71 | 0.94 |  | -21.31 | 18.00 | 0.20 |  | -18.16 | 19.00 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.63 | 0.24 | 0.71 |  | 0.57 | 0.26 | 0.58 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.26 | 0.06 |  | 0.01 | 0.27 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.64 | 4.43 | 0.39 |  | -7.35 | 4.40 | 0.23 |  | -10.18 | 4.40 | 0.50 |  | -2.08 | 5.53 | 0.02 |  | -2.75 | 5.30 | 0.04 |
| P-I | 0.15 | 0.06 | 0.66 |  | 0.15 | 0.06 | 0.66 |  | 0.15 | 0.06 | 0.71 |  | -0.00 | 0.08 | 0.04 |  | -0.00 | 0.08 | 0.04 |
| P-II | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.08 | 0.03 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.57 | 1.75 | 0.97 |  | -9.91 | 8.32 | 0.21 |  | -9.78 | 8.25 | 0.20 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.75 |  | 0.30 | 0.11 | 0.75 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.12 | 0.06 |  | 0.00 | 0.12 | 0.06 |

Table 21: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 250**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.17 | 5.39 | 1.00 |  | 6.01 | 4.98 | 0.26 |  | 3.15 | 4.89 | 0.13 |  | 10.74 | 5.60 | 0.45 |  | 50.22 | 6.38 | 1.00 |
| P-I | 0.18 | 0.08 | 0.70 |  | 0.15 | 0.05 | 0.80 |  | 0.15 | 0.05 | 0.86 |  | 0.00 | 0.07 | 0.04 |  | 0.00 | 0.09 | 0.03 |
| P-II | -0.00 | 0.07 | 0.05 |  | -0.00 | 0.06 | 0.06 |  | -0.00 | 0.05 | 0.05 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | 0.80 | 0.06 | 1.00 |  | 0.80 | 0.06 | 1.00 |  | 0.79 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.57 | 0.99 |  | -8.98 | 7.64 | 0.22 |  | -12.38 | 10.70 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.81 |  | 0.37 | 0.16 | 0.72 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.10 | 0.06 |  | -0.01 | 0.15 | 0.06 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.70 | 3.94 | 0.13 |  | 6.01 | 4.98 | 0.26 |  | 3.15 | 4.89 | 0.13 |  | 10.74 | 5.60 | 0.45 |  | 0.21 | 5.12 | 0.04 |
| P-I | 0.14 | 0.05 | 0.72 |  | 0.15 | 0.05 | 0.80 |  | 0.15 | 0.05 | 0.86 |  | 0.00 | 0.07 | 0.04 |  | 0.00 | 0.07 | 0.04 |
| P-II | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.06 | 0.06 |  | -0.00 | 0.05 | 0.05 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.07 | 0.03 |
| Pre-test score |  |  |  |  | -0.20 | 0.06 | 0.91 |  | -0.20 | 0.06 | 0.93 |  | -0.21 | 0.06 | 0.96 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.57 | 0.99 |  | -8.98 | 7.64 | 0.22 |  | -8.06 | 7.81 | 0.17 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.81 |  | 0.28 | 0.11 | 0.74 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.10 | 0.06 |  | -0.01 | 0.11 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.11 | 8.79 | 0.10 |  | 23.70 | 12.42 | 0.63 |  | 18.21 | 12.26 | 0.46 |  | 33.85 | 13.99 | 0.74 |  | 1.93 | 11.67 | 0.04 |
| P-I | 0.29 | 0.12 | 0.64 |  | 0.31 | 0.11 | 0.76 |  | 0.31 | 0.11 | 0.82 |  | 0.01 | 0.15 | 0.03 |  | 0.01 | 0.16 | 0.04 |
| P-II | -0.01 | 0.13 | 0.05 |  | -0.01 | 0.12 | 0.05 |  | -0.01 | 0.11 | 0.05 |  | 0.01 | 0.14 | 0.03 |  | 0.00 | 0.16 | 0.03 |
| Pre-test score |  |  |  |  | -0.62 | 0.17 | 0.99 |  | -0.62 | 0.16 | 1.00 |  | -0.64 | 0.16 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.62 | 3.37 | 0.97 |  | -19.36 | 16.53 | 0.22 |  | -16.59 | 17.37 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.62 | 0.23 | 0.78 |  | 0.57 | 0.24 | 0.65 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.02 | 0.23 | 0.05 |  | -0.02 | 0.24 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.36 | 3.80 | 0.46 |  | -7.07 | 3.76 | 0.27 |  | -9.93 | 3.86 | 0.61 |  | -2.35 | 5.00 | 0.04 |  | -3.04 | 4.77 | 0.07 |
| P-I | 0.15 | 0.05 | 0.79 |  | 0.15 | 0.05 | 0.80 |  | 0.15 | 0.05 | 0.86 |  | 0.00 | 0.07 | 0.04 |  | 0.00 | 0.07 | 0.03 |
| P-II | -0.00 | 0.06 | 0.06 |  | -0.00 | 0.06 | 0.06 |  | -0.00 | 0.05 | 0.05 |  | 0.00 | 0.07 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.57 | 0.99 |  | -8.98 | 7.64 | 0.22 |  | -8.88 | 7.59 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.11 | 0.81 |  | 0.30 | 0.10 | 0.81 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.10 | 0.06 |  | -0.01 | 0.10 | 0.05 |

Table 22: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 300**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.81 | 4.74 | 1.00 |  | 5.72 | 4.44 | 0.27 |  | 2.98 | 4.33 | 0.13 |  | 10.85 | 4.69 | 0.54 |  | 50.17 | 5.71 | 1.00 |
| P-I | 0.19 | 0.07 | 0.78 |  | 0.15 | 0.05 | 0.87 |  | 0.15 | 0.05 | 0.92 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.08 | 0.02 |
| P-II | 0.00 | 0.07 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | 0.80 | 0.05 | 1.00 |  | 0.80 | 0.05 | 1.00 |  | 0.79 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.56 | 1.47 | 0.99 |  | -9.62 | 6.51 | 0.29 |  | -12.76 | 9.46 | 0.27 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.09 | 0.91 |  | 0.37 | 0.14 | 0.80 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.13 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.04 | 3.69 | 0.19 |  | 5.72 | 4.44 | 0.27 |  | 2.98 | 4.33 | 0.13 |  | 10.85 | 4.69 | 0.54 |  | 0.37 | 4.44 | 0.04 |
| P-I | 0.14 | 0.05 | 0.82 |  | 0.15 | 0.05 | 0.87 |  | 0.15 | 0.05 | 0.92 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| P-II | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.20 | 0.05 | 0.96 |  | -0.20 | 0.05 | 0.98 |  | -0.21 | 0.05 | 0.98 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.56 | 1.47 | 0.99 |  | -9.62 | 6.51 | 0.29 |  | -8.81 | 6.71 | 0.24 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.09 | 0.91 |  | 0.29 | 0.09 | 0.87 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.10 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.89 | 8.14 | 0.13 |  | 22.69 | 10.57 | 0.66 |  | 17.43 | 10.27 | 0.50 |  | 33.66 | 11.14 | 0.85 |  | 2.20 | 9.95 | 0.03 |
| P-I | 0.29 | 0.11 | 0.75 |  | 0.32 | 0.10 | 0.84 |  | 0.32 | 0.10 | 0.88 |  | 0.00 | 0.13 | 0.02 |  | 0.00 | 0.14 | 0.03 |
| P-II | 0.00 | 0.11 | 0.05 |  | 0.00 | 0.11 | 0.06 |  | 0.00 | 0.10 | 0.06 |  | 0.00 | 0.13 | 0.03 |  | 0.00 | 0.15 | 0.04 |
| Pre-test score |  |  |  |  | -0.62 | 0.14 | 1.00 |  | -0.62 | 0.14 | 1.00 |  | -0.63 | 0.13 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.67 | 3.13 | 0.98 |  | -20.60 | 14.41 | 0.29 |  | -18.16 | 15.29 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.63 | 0.19 | 0.88 |  | 0.58 | 0.20 | 0.78 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.20 | 0.04 |  | -0.00 | 0.22 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.69 | 3.48 | 0.57 |  | -7.41 | 3.49 | 0.37 |  | -10.15 | 3.50 | 0.72 |  | -2.27 | 4.26 | 0.04 |  | -2.92 | 4.07 | 0.06 |
| P-I | 0.15 | 0.05 | 0.87 |  | 0.15 | 0.05 | 0.87 |  | 0.15 | 0.05 | 0.92 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.02 |
| P-II | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.06 | 0.02 |  | 0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.56 | 1.47 | 0.99 |  | -9.62 | 6.51 | 0.29 |  | -9.54 | 6.48 | 0.29 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.31 | 0.09 | 0.91 |  | 0.30 | 0.09 | 0.91 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.09 | 0.04 |

Table 23: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 400**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 44.19 | 4.20 | 1.00 |  | 6.11 | 3.91 | 0.37 |  | 3.29 | 3.71 | 0.16 |  | 11.05 | 4.37 | 0.68 |  | 50.40 | 5.07 | 1.00 |
| P-I | 0.18 | 0.06 | 0.87 |  | 0.15 | 0.04 | 0.92 |  | 0.15 | 0.04 | 0.95 |  | -0.00 | 0.05 | 0.04 |  | 0.00 | 0.07 | 0.04 |
| P-II | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.05 | 0.02 |  | 0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | 0.80 | 0.05 | 1.00 |  | 0.80 | 0.05 | 1.00 |  | 0.79 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.50 | 1.21 | 1.00 |  | -9.45 | 5.79 | 0.37 |  | -12.59 | 8.35 | 0.35 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.08 | 0.97 |  | 0.37 | 0.12 | 0.89 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.03 |  | -0.01 | 0.11 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.64 | 3.08 | 0.19 |  | 6.11 | 3.91 | 0.37 |  | 3.29 | 3.71 | 0.16 |  | 11.05 | 4.37 | 0.68 |  | 0.60 | 4.01 | 0.04 |
| P-I | 0.14 | 0.04 | 0.87 |  | 0.15 | 0.04 | 0.92 |  | 0.15 | 0.04 | 0.95 |  | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.06 | 0.04 |
| P-II | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.05 | 0.02 |  | -0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.20 | 0.05 | 0.99 |  | -0.20 | 0.05 | 0.99 |  | -0.21 | 0.04 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.50 | 1.21 | 1.00 |  | -9.45 | 5.79 | 0.37 |  | -8.63 | 5.96 | 0.30 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.08 | 0.97 |  | 0.28 | 0.08 | 0.92 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.03 |  | 0.00 | 0.08 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.23 | 6.87 | 0.13 |  | 23.45 | 9.30 | 0.81 |  | 18.03 | 8.93 | 0.62 |  | 34.06 | 10.48 | 0.92 |  | 2.54 | 8.90 | 0.04 |
| P-I | 0.28 | 0.09 | 0.82 |  | 0.31 | 0.09 | 0.91 |  | 0.31 | 0.09 | 0.94 |  | -0.00 | 0.12 | 0.03 |  | -0.00 | 0.13 | 0.04 |
| P-II | 0.00 | 0.10 | 0.05 |  | -0.00 | 0.09 | 0.05 |  | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.11 | 0.03 |  | -0.00 | 0.12 | 0.03 |
| Pre-test score |  |  |  |  | -0.62 | 0.13 | 1.00 |  | -0.62 | 0.12 | 1.00 |  | -0.63 | 0.12 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.57 | 2.57 | 1.00 |  | -20.30 | 12.72 | 0.36 |  | -17.80 | 13.49 | 0.26 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.62 | 0.17 | 0.95 |  | 0.56 | 0.18 | 0.86 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.17 | 0.04 |  | 0.00 | 0.18 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.28 | 2.98 | 0.66 |  | -6.96 | 2.95 | 0.44 |  | -9.78 | 2.96 | 0.83 |  | -2.02 | 3.89 | 0.04 |  | -2.67 | 3.75 | 0.08 |
| P-I | 0.15 | 0.04 | 0.92 |  | 0.15 | 0.04 | 0.92 |  | 0.15 | 0.04 | 0.95 |  | -0.00 | 0.05 | 0.04 |  | -0.00 | 0.05 | 0.04 |
| P-II | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.05 | 0.02 |  | -0.00 | 0.05 | 0.02 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.50 | 1.21 | 1.00 |  | -9.45 | 5.79 | 0.37 |  | -9.37 | 5.77 | 0.36 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.08 | 0.97 |  | 0.30 | 0.08 | 0.97 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.03 |  | -0.00 | 0.07 | 0.03 |

Table 24: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .80**, and a sample size of ***n* = 500**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.99 | 3.88 | 1.00 |  | 5.76 | 3.51 | 0.42 |  | 3.01 | 3.40 | 0.17 |  | 10.79 | 4.02 | 0.76 |  | 50.50 | 4.47 | 1.00 |
| P-I | 0.19 | 0.05 | 0.94 |  | 0.15 | 0.04 | 0.98 |  | 0.15 | 0.03 | 0.99 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.06 | 0.02 |
| P-II | 0.00 | 0.05 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.02 |  | -0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | 0.80 | 0.04 | 1.00 |  | 0.80 | 0.04 | 1.00 |  | 0.79 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.12 | 1.00 |  | -9.35 | 5.34 | 0.45 |  | -13.05 | 7.20 | 0.43 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.07 | 0.99 |  | 0.37 | 0.10 | 0.95 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.05 |  | 0.00 | 0.10 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -3.82 | 2.83 | 0.26 |  | 5.76 | 3.51 | 0.42 |  | 3.01 | 3.40 | 0.17 |  | 10.79 | 4.02 | 0.76 |  | 0.37 | 3.64 | 0.04 |
| P-I | 0.14 | 0.04 | 0.95 |  | 0.15 | 0.04 | 0.98 |  | 0.15 | 0.03 | 0.99 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.05 | 0.04 |
| P-II | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.02 |  | 0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.20 | 0.04 | 0.99 |  | -0.20 | 0.04 | 1.00 |  | -0.21 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.12 | 1.00 |  | -9.35 | 5.34 | 0.45 |  | -8.37 | 5.53 | 0.37 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.07 | 0.99 |  | 0.28 | 0.07 | 0.96 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.05 |  | -0.00 | 0.08 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -6.49 | 6.26 | 0.18 |  | 22.80 | 8.46 | 0.85 |  | 17.51 | 8.30 | 0.69 |  | 33.55 | 9.70 | 0.94 |  | 2.08 | 8.18 | 0.05 |
| P-I | 0.28 | 0.08 | 0.90 |  | 0.31 | 0.08 | 0.97 |  | 0.31 | 0.08 | 0.98 |  | 0.00 | 0.10 | 0.04 |  | 0.00 | 0.11 | 0.04 |
| P-II | 0.00 | 0.09 | 0.05 |  | 0.00 | 0.09 | 0.06 |  | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.10 | 0.03 |  | 0.00 | 0.11 | 0.04 |
| Pre-test score |  |  |  |  | -0.61 | 0.11 | 1.00 |  | -0.61 | 0.11 | 1.00 |  | -0.63 | 0.11 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 10.62 | 2.40 | 1.00 |  | -20.05 | 11.69 | 0.44 |  | -17.12 | 12.46 | 0.32 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.61 | 0.15 | 0.97 |  | 0.56 | 0.16 | 0.92 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.16 | 0.05 |  | -0.00 | 0.17 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -7.49 | 2.72 | 0.78 |  | -7.18 | 2.70 | 0.59 |  | -9.94 | 2.66 | 0.91 |  | -2.15 | 3.49 | 0.05 |  | -2.87 | 3.37 | 0.11 |
| P-I | 0.15 | 0.04 | 0.98 |  | 0.15 | 0.04 | 0.98 |  | 0.15 | 0.03 | 0.99 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.05 | 0.04 |
| P-II | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.02 |  | 0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.54 | 1.12 | 1.00 |  | -9.35 | 5.34 | 0.45 |  | -9.25 | 5.33 | 0.44 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.30 | 0.07 | 0.99 |  | 0.30 | 0.07 | 0.98 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.05 |  | -0.00 | 0.07 | 0.05 |

Table 25: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 50**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.69 | 12.62 | 0.92 |  | 0.52 | 11.19 | 0.07 |  | -2.57 | 10.66 | 0.09 |  | 5.66 | 12.05 | 0.08 |  | 49.91 | 15.49 | 0.83 |
| P-I | 0.19 | 0.17 | 0.20 |  | 0.16 | 0.11 | 0.25 |  | 0.17 | 0.10 | 0.31 |  | 0.01 | 0.14 | 0.02 |  | 0.01 | 0.21 | 0.03 |
| P-II | 0.01 | 0.18 | 0.06 |  | 0.00 | 0.12 | 0.07 |  | -0.00 | 0.11 | 0.06 |  | 0.00 | 0.15 | 0.03 |  | 0.01 | 0.22 | 0.04 |
| Pre-test score |  |  |  |  | 0.89 | 0.15 | 1.00 |  | 0.90 | 0.14 | 1.00 |  | 0.89 | 0.14 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.84 | 3.61 | 0.67 |  | -10.44 | 15.79 | 0.11 |  | -13.19 | 26.10 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.21 | 0.30 |  | 0.39 | 0.37 | 0.19 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.23 | 0.05 |  | -0.01 | 0.34 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.72 | 8.50 | 0.08 |  | 0.52 | 11.19 | 0.07 |  | -2.57 | 10.66 | 0.09 |  | 5.66 | 12.05 | 0.08 |  | 0.15 | 10.61 | 0.04 |
| P-I | 0.16 | 0.11 | 0.24 |  | 0.16 | 0.11 | 0.25 |  | 0.17 | 0.10 | 0.31 |  | 0.01 | 0.14 | 0.02 |  | 0.01 | 0.14 | 0.03 |
| P-II | 0.00 | 0.12 | 0.06 |  | 0.00 | 0.12 | 0.07 |  | -0.00 | 0.11 | 0.06 |  | 0.00 | 0.15 | 0.03 |  | 0.00 | 0.15 | 0.04 |
| Pre-test score |  |  |  |  | -0.11 | 0.15 | 0.23 |  | -0.10 | 0.14 | 0.26 |  | -0.11 | 0.14 | 0.27 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.84 | 3.61 | 0.67 |  | -10.44 | 15.79 | 0.11 |  | -10.31 | 15.69 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.21 | 0.30 |  | 0.33 | 0.21 | 0.29 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.23 | 0.05 |  | -0.00 | 0.23 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -9.08 | 18.51 | 0.08 |  | 11.17 | 26.31 | 0.13 |  | 5.23 | 25.10 | 0.12 |  | 22.18 | 28.44 | 0.15 |  | 1.22 | 23.64 | 0.04 |
| P-I | 0.33 | 0.25 | 0.22 |  | 0.34 | 0.24 | 0.25 |  | 0.35 | 0.22 | 0.29 |  | 0.01 | 0.30 | 0.03 |  | 0.01 | 0.32 | 0.04 |
| P-II | 0.01 | 0.27 | 0.06 |  | 0.01 | 0.26 | 0.06 |  | 0.00 | 0.24 | 0.06 |  | 0.01 | 0.32 | 0.04 |  | 0.01 | 0.35 | 0.05 |
| Pre-test score |  |  |  |  | -0.41 | 0.37 | 0.43 |  | -0.41 | 0.36 | 0.46 |  | -0.42 | 0.35 | 0.46 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.20 | 7.59 | 0.62 |  | -22.40 | 34.09 | 0.10 |  | -21.73 | 34.80 | 0.09 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.68 | 0.45 | 0.28 |  | 0.67 | 0.46 | 0.26 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.49 | 0.05 |  | -0.01 | 0.52 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.08 | 8.10 | 0.15 |  | -7.93 | 8.29 | 0.07 |  | -11.02 | 8.43 | 0.17 |  | -2.79 | 10.94 | 0.03 |  | -3.40 | 10.03 | 0.04 |
| P-I | 0.16 | 0.11 | 0.25 |  | 0.16 | 0.11 | 0.25 |  | 0.17 | 0.10 | 0.31 |  | 0.01 | 0.14 | 0.02 |  | 0.01 | 0.14 | 0.03 |
| P-II | 0.00 | 0.12 | 0.06 |  | 0.00 | 0.12 | 0.07 |  | -0.00 | 0.11 | 0.06 |  | 0.00 | 0.15 | 0.03 |  | 0.00 | 0.14 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.03 | 0.00 |  | -0.00 | 0.06 | 0.00 |  | -0.01 | 0.07 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.84 | 3.61 | 0.67 |  | -10.44 | 15.79 | 0.11 |  | -10.00 | 15.43 | 0.10 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.21 | 0.30 |  | 0.32 | 0.21 | 0.30 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.23 | 0.05 |  | -0.01 | 0.22 | 0.05 |

Table 26: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 100**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.45 | 8.78 | 1.00 |  | 0.17 | 7.69 | 0.09 |  | -2.82 | 7.42 | 0.10 |  | 5.91 | 8.35 | 0.14 |  | 50.92 | 10.53 | 0.99 |
| P-I | 0.20 | 0.12 | 0.39 |  | 0.16 | 0.08 | 0.54 |  | 0.16 | 0.07 | 0.62 |  | 0.00 | 0.09 | 0.04 |  | -0.00 | 0.15 | 0.03 |
| P-II | 0.00 | 0.12 | 0.05 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.05 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.14 | 0.02 |
| Pre-test score |  |  |  |  | 0.90 | 0.10 | 1.00 |  | 0.90 | 0.09 | 1.00 |  | 0.89 | 0.09 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.96 | 2.42 | 0.90 |  | -10.81 | 9.99 | 0.15 |  | -15.18 | 16.63 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.14 | 0.63 |  | 0.42 | 0.25 | 0.44 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.14 | 0.06 |  | 0.01 | 0.23 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.64 | 5.54 | 0.12 |  | 0.17 | 7.69 | 0.09 |  | -2.82 | 7.42 | 0.10 |  | 5.91 | 8.35 | 0.14 |  | 0.51 | 7.10 | 0.05 |
| P-I | 0.16 | 0.07 | 0.51 |  | 0.16 | 0.08 | 0.54 |  | 0.16 | 0.07 | 0.62 |  | 0.00 | 0.09 | 0.04 |  | 0.00 | 0.10 | 0.03 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.05 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.10 | 0.04 |
| Pre-test score |  |  |  |  | -0.10 | 0.10 | 0.32 |  | -0.10 | 0.09 | 0.34 |  | -0.11 | 0.09 | 0.38 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.96 | 2.42 | 0.90 |  | -10.81 | 9.99 | 0.15 |  | -10.40 | 10.14 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.14 | 0.63 |  | 0.32 | 0.14 | 0.60 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.14 | 0.06 |  | 0.00 | 0.14 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.62 | 11.98 | 0.10 |  | 10.30 | 17.91 | 0.18 |  | 4.58 | 17.31 | 0.14 |  | 22.60 | 19.71 | 0.28 |  | 2.07 | 15.91 | 0.06 |
| P-I | 0.32 | 0.16 | 0.47 |  | 0.34 | 0.16 | 0.51 |  | 0.34 | 0.14 | 0.59 |  | 0.00 | 0.21 | 0.03 |  | 0.01 | 0.21 | 0.04 |
| P-II | 0.01 | 0.18 | 0.06 |  | 0.00 | 0.17 | 0.06 |  | 0.00 | 0.16 | 0.06 |  | -0.01 | 0.20 | 0.04 |  | -0.01 | 0.22 | 0.04 |
| Pre-test score |  |  |  |  | -0.39 | 0.25 | 0.60 |  | -0.39 | 0.24 | 0.62 |  | -0.41 | 0.23 | 0.66 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.40 | 5.11 | 0.85 |  | -23.25 | 21.53 | 0.17 |  | -21.57 | 22.73 | 0.14 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.68 | 0.29 | 0.59 |  | 0.65 | 0.30 | 0.51 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 | 0.31 | 0.06 |  | 0.01 | 0.32 | 0.06 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.22 | 5.44 | 0.30 |  | -7.94 | 5.42 | 0.15 |  | -10.92 | 5.52 | 0.38 |  | -2.20 | 7.11 | 0.03 |  | -2.99 | 6.76 | 0.04 |
| P-I | 0.16 | 0.07 | 0.54 |  | 0.16 | 0.08 | 0.54 |  | 0.16 | 0.07 | 0.62 |  | 0.00 | 0.09 | 0.04 |  | 0.00 | 0.09 | 0.04 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.05 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.09 | 0.04 |
| Pre-test score |  |  |  |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.04 | 0.00 |  | -0.02 | 0.04 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.96 | 2.42 | 0.90 |  | -10.81 | 9.99 | 0.15 |  | -10.58 | 9.89 | 0.15 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.14 | 0.63 |  | 0.33 | 0.13 | 0.63 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.14 | 0.06 |  | 0.00 | 0.14 | 0.05 |

Table 27: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 150**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.36 | 7.50 | 1.00 |  | 0.59 | 6.19 | 0.09 |  | -2.37 | 5.83 | 0.09 |  | 6.13 | 6.54 | 0.16 |  | 50.49 | 8.89 | 1.00 |
| P-I | 0.21 | 0.10 | 0.55 |  | 0.16 | 0.06 | 0.72 |  | 0.16 | 0.05 | 0.81 |  | -0.00 | 0.07 | 0.04 |  | 0.00 | 0.12 | 0.04 |
| P-II | -0.00 | 0.10 | 0.05 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.08 | 0.03 |  | 0.00 | 0.12 | 0.04 |
| Pre-test score |  |  |  |  | 0.90 | 0.08 | 1.00 |  | 0.89 | 0.08 | 1.00 |  | 0.89 | 0.07 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.91 | 1.99 | 0.96 |  | -10.40 | 8.24 | 0.23 |  | -14.63 | 13.82 | 0.19 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.11 | 0.82 |  | 0.41 | 0.20 | 0.59 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.12 | 0.05 |  | -0.00 | 0.18 | 0.04 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.41 | 4.58 | 0.15 |  | 0.59 | 6.19 | 0.09 |  | -2.37 | 5.83 | 0.09 |  | 6.13 | 6.54 | 0.16 |  | 0.44 | 5.67 | 0.04 |
| P-I | 0.16 | 0.06 | 0.69 |  | 0.16 | 0.06 | 0.72 |  | 0.16 | 0.05 | 0.81 |  | -0.00 | 0.07 | 0.04 |  | -0.00 | 0.08 | 0.04 |
| P-II | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.08 | 0.03 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | -0.10 | 0.08 | 0.42 |  | -0.11 | 0.08 | 0.48 |  | -0.11 | 0.07 | 0.53 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.91 | 1.99 | 0.96 |  | -10.40 | 8.24 | 0.23 |  | -9.91 | 8.30 | 0.21 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.11 | 0.82 |  | 0.32 | 0.11 | 0.78 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.12 | 0.05 |  | -0.00 | 0.12 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.15 | 9.76 | 0.12 |  | 11.30 | 14.64 | 0.22 |  | 5.65 | 14.12 | 0.14 |  | 23.23 | 15.47 | 0.40 |  | 1.97 | 12.27 | 0.04 |
| P-I | 0.32 | 0.13 | 0.63 |  | 0.34 | 0.13 | 0.71 |  | 0.34 | 0.12 | 0.78 |  | -0.00 | 0.16 | 0.04 |  | -0.00 | 0.17 | 0.04 |
| P-II | 0.00 | 0.14 | 0.06 |  | 0.00 | 0.14 | 0.05 |  | 0.00 | 0.13 | 0.04 |  | 0.01 | 0.16 | 0.03 |  | 0.01 | 0.18 | 0.04 |
| Pre-test score |  |  |  |  | -0.41 | 0.21 | 0.76 |  | -0.41 | 0.21 | 0.79 |  | -0.42 | 0.20 | 0.83 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.29 | 4.28 | 0.93 |  | -22.48 | 17.50 | 0.22 |  | -20.65 | 18.12 | 0.18 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.68 | 0.24 | 0.80 |  | 0.64 | 0.25 | 0.71 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.25 | 0.05 |  | -0.01 | 0.27 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.07 | 4.45 | 0.41 |  | -7.73 | 4.40 | 0.25 |  | -10.68 | 4.30 | 0.55 |  | -2.19 | 5.67 | 0.04 |  | -3.08 | 5.42 | 0.07 |
| P-I | 0.16 | 0.06 | 0.72 |  | 0.16 | 0.06 | 0.72 |  | 0.16 | 0.05 | 0.81 |  | -0.00 | 0.07 | 0.04 |  | -0.00 | 0.07 | 0.04 |
| P-II | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.05 |  | 0.00 | 0.08 | 0.03 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.02 | 0.00 |  | -0.01 | 0.03 | 0.00 |  | -0.02 | 0.04 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.91 | 1.99 | 0.96 |  | -10.40 | 8.24 | 0.23 |  | -10.21 | 8.17 | 0.22 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.11 | 0.82 |  | 0.32 | 0.11 | 0.81 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.12 | 0.05 |  | -0.00 | 0.12 | 0.05 |

Table 28: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 200**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.20 | 6.19 | 1.00 |  | 0.25 | 5.33 | 0.08 |  | -2.67 | 5.14 | 0.13 |  | 5.91 | 5.75 | 0.19 |  | 50.60 | 7.52 | 1.00 |
| P-I | 0.21 | 0.09 | 0.68 |  | 0.16 | 0.05 | 0.86 |  | 0.16 | 0.05 | 0.93 |  | 0.00 | 0.07 | 0.03 |  | 0.00 | 0.10 | 0.04 |
| P-II | -0.00 | 0.09 | 0.06 |  | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.10 | 0.02 |
| Pre-test score |  |  |  |  | 0.90 | 0.07 | 1.00 |  | 0.90 | 0.07 | 1.00 |  | 0.89 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.82 | 1.75 | 0.99 |  | -10.64 | 6.98 | 0.32 |  | -14.96 | 11.90 | 0.25 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.09 | 0.94 |  | 0.42 | 0.17 | 0.71 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.10 | 0.05 |  | -0.00 | 0.16 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.47 | 3.93 | 0.20 |  | 0.25 | 5.33 | 0.08 |  | -2.67 | 5.14 | 0.13 |  | 5.91 | 5.75 | 0.19 |  | 0.56 | 4.98 | 0.04 |
| P-I | 0.16 | 0.05 | 0.83 |  | 0.16 | 0.05 | 0.86 |  | 0.16 | 0.05 | 0.93 |  | 0.00 | 0.07 | 0.03 |  | 0.00 | 0.07 | 0.04 |
| P-II | -0.00 | 0.06 | 0.06 |  | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.07 | 0.04 |
| Pre-test score |  |  |  |  | -0.10 | 0.07 | 0.45 |  | -0.10 | 0.07 | 0.49 |  | -0.11 | 0.06 | 0.56 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.82 | 1.75 | 0.99 |  | -10.64 | 6.98 | 0.32 |  | -10.17 | 7.02 | 0.28 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.09 | 0.94 |  | 0.32 | 0.09 | 0.91 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.10 | 0.05 |  | 0.00 | 0.10 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.26 | 8.59 | 0.15 |  | 10.45 | 12.67 | 0.25 |  | 4.87 | 12.38 | 0.17 |  | 22.51 | 13.62 | 0.47 |  | 2.07 | 11.09 | 0.05 |
| P-I | 0.32 | 0.11 | 0.76 |  | 0.34 | 0.11 | 0.84 |  | 0.34 | 0.10 | 0.90 |  | 0.00 | 0.14 | 0.04 |  | 0.00 | 0.15 | 0.04 |
| P-II | -0.00 | 0.12 | 0.05 |  | -0.00 | 0.12 | 0.05 |  | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.14 | 0.03 |  | -0.00 | 0.15 | 0.04 |
| Pre-test score |  |  |  |  | -0.39 | 0.18 | 0.80 |  | -0.39 | 0.17 | 0.82 |  | -0.41 | 0.17 | 0.87 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.09 | 3.73 | 0.97 |  | -22.74 | 15.21 | 0.31 |  | -20.89 | 15.69 | 0.25 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.68 | 0.20 | 0.91 |  | 0.64 | 0.21 | 0.84 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.21 | 0.05 |  | -0.00 | 0.22 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.12 | 3.77 | 0.54 |  | -7.79 | 3.75 | 0.33 |  | -10.71 | 3.78 | 0.70 |  | -2.13 | 4.95 | 0.04 |  | -2.94 | 4.71 | 0.07 |
| P-I | 0.16 | 0.05 | 0.86 |  | 0.16 | 0.05 | 0.86 |  | 0.16 | 0.05 | 0.93 |  | 0.00 | 0.07 | 0.03 |  | 0.00 | 0.07 | 0.03 |
| P-II | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.06 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.07 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.03 | 0.00 |  | -0.02 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.82 | 1.75 | 0.99 |  | -10.64 | 6.98 | 0.32 |  | -10.48 | 6.93 | 0.31 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.09 | 0.94 |  | 0.33 | 0.09 | 0.93 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.10 | 0.05 |  | 0.00 | 0.10 | 0.05 |

Table 29: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 250**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.02 | 5.53 | 1.00 |  | 0.62 | 4.75 | 0.09 |  | -2.43 | 4.60 | 0.13 |  | 6.19 | 5.06 | 0.23 |  | 50.15 | 6.52 | 1.00 |
| P-I | 0.21 | 0.08 | 0.78 |  | 0.16 | 0.05 | 0.93 |  | 0.16 | 0.04 | 0.97 |  | 0.00 | 0.06 | 0.03 |  | 0.01 | 0.09 | 0.03 |
| P-II | -0.00 | 0.07 | 0.04 |  | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | 0.00 | 0.09 | 0.02 |
| Pre-test score |  |  |  |  | 0.89 | 0.06 | 1.00 |  | 0.90 | 0.06 | 1.00 |  | 0.89 | 0.06 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.89 | 1.58 | 0.99 |  | -10.74 | 6.30 | 0.39 |  | -14.59 | 10.97 | 0.31 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.08 | 0.98 |  | 0.41 | 0.15 | 0.79 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.04 |  | -0.00 | 0.14 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.41 | 3.45 | 0.23 |  | 0.62 | 4.75 | 0.09 |  | -2.43 | 4.60 | 0.13 |  | 6.19 | 5.06 | 0.23 |  | 0.65 | 4.28 | 0.04 |
| P-I | 0.16 | 0.05 | 0.91 |  | 0.16 | 0.05 | 0.93 |  | 0.16 | 0.04 | 0.97 |  | 0.00 | 0.06 | 0.03 |  | 0.00 | 0.06 | 0.03 |
| P-II | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.06 | 0.04 |
| Pre-test score |  |  |  |  | -0.11 | 0.06 | 0.55 |  | -0.10 | 0.06 | 0.58 |  | -0.11 | 0.06 | 0.66 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.89 | 1.58 | 0.99 |  | -10.74 | 6.30 | 0.39 |  | -10.34 | 6.30 | 0.38 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.08 | 0.98 |  | 0.32 | 0.08 | 0.96 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.04 |  | 0.00 | 0.09 | 0.04 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.06 | 7.48 | 0.18 |  | 11.22 | 11.47 | 0.30 |  | 5.39 | 11.21 | 0.17 |  | 23.07 | 12.18 | 0.57 |  | 2.38 | 9.43 | 0.05 |
| P-I | 0.32 | 0.10 | 0.86 |  | 0.34 | 0.10 | 0.91 |  | 0.34 | 0.09 | 0.95 |  | 0.00 | 0.12 | 0.04 |  | 0.00 | 0.13 | 0.04 |
| P-II | -0.00 | 0.11 | 0.05 |  | -0.00 | 0.10 | 0.05 |  | -0.00 | 0.10 | 0.06 |  | -0.00 | 0.12 | 0.03 |  | -0.01 | 0.13 | 0.03 |
| Pre-test score |  |  |  |  | -0.40 | 0.16 | 0.90 |  | -0.40 | 0.16 | 0.91 |  | -0.42 | 0.15 | 0.94 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.24 | 3.36 | 0.98 |  | -22.84 | 13.75 | 0.37 |  | -21.28 | 13.94 | 0.31 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.68 | 0.18 | 0.96 |  | 0.64 | 0.18 | 0.92 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.19 | 0.04 |  | 0.01 | 0.19 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.05 | 3.32 | 0.63 |  | -7.68 | 3.27 | 0.42 |  | -10.73 | 3.37 | 0.83 |  | -2.10 | 4.35 | 0.04 |  | -2.87 | 4.08 | 0.07 |
| P-I | 0.16 | 0.05 | 0.93 |  | 0.16 | 0.05 | 0.93 |  | 0.16 | 0.04 | 0.97 |  | 0.00 | 0.06 | 0.03 |  | 0.00 | 0.06 | 0.03 |
| P-II | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.05 | 0.05 |  | -0.00 | 0.05 | 0.06 |  | -0.00 | 0.06 | 0.03 |  | -0.00 | 0.06 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.02 | 0.03 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.89 | 1.58 | 0.99 |  | -10.74 | 6.30 | 0.39 |  | -10.60 | 6.26 | 0.39 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.08 | 0.98 |  | 0.33 | 0.08 | 0.98 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.09 | 0.04 |  | 0.00 | 0.09 | 0.04 |

Table 30: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 300**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.20 | 5.04 | 1.00 |  | 0.34 | 4.38 | 0.09 |  | -2.60 | 4.15 | 0.15 |  | 5.79 | 4.54 | 0.25 |  | 50.23 | 5.98 | 1.00 |
| P-I | 0.21 | 0.07 | 0.85 |  | 0.16 | 0.04 | 0.97 |  | 0.16 | 0.04 | 0.98 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.08 | 0.03 |
| P-II | -0.00 | 0.07 | 0.05 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.08 | 0.03 |
| Pre-test score |  |  |  |  | 0.90 | 0.05 | 1.00 |  | 0.90 | 0.05 | 1.00 |  | 0.89 | 0.05 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.87 | 1.40 | 1.00 |  | -10.18 | 5.75 | 0.42 |  | -14.09 | 9.84 | 0.34 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.08 | 0.99 |  | 0.41 | 0.14 | 0.86 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.08 | 0.05 |  | -0.01 | 0.13 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.49 | 3.21 | 0.28 |  | 0.34 | 4.38 | 0.09 |  | -2.60 | 4.15 | 0.15 |  | 5.79 | 4.54 | 0.25 |  | 0.36 | 3.95 | 0.04 |
| P-I | 0.16 | 0.04 | 0.96 |  | 0.16 | 0.04 | 0.97 |  | 0.16 | 0.04 | 0.98 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.05 | 0.04 |
| P-II | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.06 | 0.04 |
| Pre-test score |  |  |  |  | -0.10 | 0.05 | 0.60 |  | -0.10 | 0.05 | 0.64 |  | -0.11 | 0.05 | 0.71 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.87 | 1.40 | 1.00 |  | -10.18 | 5.75 | 0.42 |  | -9.74 | 5.77 | 0.38 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.08 | 0.99 |  | 0.32 | 0.08 | 0.98 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.37 | 6.97 | 0.23 |  | 10.31 | 10.45 | 0.32 |  | 4.68 | 9.95 | 0.17 |  | 21.97 | 10.74 | 0.60 |  | 1.69 | 8.58 | 0.04 |
| P-I | 0.32 | 0.09 | 0.92 |  | 0.34 | 0.09 | 0.96 |  | 0.34 | 0.08 | 0.97 |  | 0.00 | 0.11 | 0.04 |  | 0.00 | 0.12 | 0.04 |
| P-II | 0.00 | 0.10 | 0.05 |  | -0.00 | 0.09 | 0.04 |  | -0.00 | 0.09 | 0.04 |  | 0.00 | 0.11 | 0.03 |  | 0.00 | 0.12 | 0.04 |
| Pre-test score |  |  |  |  | -0.39 | 0.14 | 0.93 |  | -0.39 | 0.13 | 0.95 |  | -0.41 | 0.13 | 0.96 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.22 | 3.00 | 1.00 |  | -21.87 | 12.23 | 0.42 |  | -20.21 | 12.47 | 0.35 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.67 | 0.17 | 0.97 |  | 0.64 | 0.17 | 0.95 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.01 | 0.17 | 0.05 |  | -0.01 | 0.18 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.10 | 3.07 | 0.73 |  | -7.74 | 3.06 | 0.52 |  | -10.68 | 3.01 | 0.88 |  | -2.30 | 3.99 | 0.05 |  | -3.09 | 3.77 | 0.10 |
| P-I | 0.16 | 0.04 | 0.97 |  | 0.16 | 0.04 | 0.97 |  | 0.16 | 0.04 | 0.98 |  | 0.00 | 0.05 | 0.03 |  | 0.00 | 0.05 | 0.03 |
| P-II | -0.00 | 0.04 | 0.05 |  | -0.00 | 0.04 | 0.04 |  | -0.00 | 0.04 | 0.05 |  | 0.00 | 0.05 | 0.04 |  | 0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.02 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.87 | 1.40 | 1.00 |  | -10.18 | 5.75 | 0.42 |  | -10.06 | 5.71 | 0.41 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.32 | 0.08 | 0.99 |  | 0.32 | 0.08 | 0.99 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.08 | 0.05 |  | -0.00 | 0.08 | 0.05 |

Table 31: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 400**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.28 | 4.43 | 1.00 |  | 0.49 | 3.78 | 0.09 |  | -2.42 | 3.60 | 0.16 |  | 6.09 | 3.99 | 0.34 |  | 50.47 | 5.11 | 1.00 |
| P-I | 0.20 | 0.06 | 0.91 |  | 0.16 | 0.04 | 0.99 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.03 |  | 0.00 | 0.07 | 0.03 |
| P-II | 0.00 | 0.06 | 0.04 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.04 |  | 0.00 | 0.04 | 0.03 |  | 0.00 | 0.07 | 0.02 |
| Pre-test score |  |  |  |  | 0.90 | 0.05 | 1.00 |  | 0.90 | 0.05 | 1.00 |  | 0.89 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.86 | 1.17 | 1.00 |  | -10.40 | 5.08 | 0.56 |  | -14.46 | 8.55 | 0.43 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.07 | 1.00 |  | 0.41 | 0.12 | 0.93 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.06 |  | -0.00 | 0.12 | 0.05 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.47 | 2.76 | 0.35 |  | 0.49 | 3.78 | 0.09 |  | -2.42 | 3.60 | 0.16 |  | 6.09 | 3.99 | 0.34 |  | 0.47 | 3.44 | 0.05 |
| P-I | 0.16 | 0.04 | 0.99 |  | 0.16 | 0.04 | 0.99 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.03 |  | -0.00 | 0.05 | 0.03 |
| P-II | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.04 |  | 0.00 | 0.04 | 0.03 |  | 0.00 | 0.05 | 0.04 |
| Pre-test score |  |  |  |  | -0.10 | 0.05 | 0.70 |  | -0.10 | 0.05 | 0.76 |  | -0.11 | 0.04 | 0.82 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.86 | 1.17 | 1.00 |  | -10.40 | 5.08 | 0.56 |  | -9.91 | 5.10 | 0.50 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.07 | 1.00 |  | 0.32 | 0.07 | 1.00 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.06 |  | -0.00 | 0.07 | 0.05 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.17 | 5.98 | 0.25 |  | 10.99 | 9.06 | 0.38 |  | 5.42 | 8.75 | 0.23 |  | 22.88 | 9.57 | 0.74 |  | 1.98 | 7.63 | 0.06 |
| P-I | 0.32 | 0.08 | 0.97 |  | 0.33 | 0.08 | 0.99 |  | 0.34 | 0.07 | 1.00 |  | 0.00 | 0.09 | 0.03 |  | 0.00 | 0.10 | 0.03 |
| P-II | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.08 | 0.05 |  | 0.00 | 0.10 | 0.03 |  | 0.00 | 0.10 | 0.04 |
| Pre-test score |  |  |  |  | -0.40 | 0.13 | 0.97 |  | -0.40 | 0.12 | 0.98 |  | -0.42 | 0.12 | 0.99 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.19 | 2.51 | 1.00 |  | -22.19 | 11.01 | 0.54 |  | -20.36 | 11.29 | 0.45 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.67 | 0.14 | 1.00 |  | 0.64 | 0.15 | 0.99 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.15 | 0.05 |  | -0.00 | 0.15 | 0.04 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.14 | 2.66 | 0.86 |  | -7.79 | 2.64 | 0.69 |  | -10.70 | 2.62 | 0.97 |  | -2.19 | 3.43 | 0.06 |  | -3.01 | 3.28 | 0.12 |
| P-I | 0.16 | 0.04 | 0.99 |  | 0.16 | 0.04 | 0.99 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.03 |  | 0.00 | 0.04 | 0.03 |
| P-II | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.05 |  | 0.00 | 0.04 | 0.04 |  | 0.00 | 0.04 | 0.03 |  | 0.00 | 0.05 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.02 | 0.02 | 0.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.86 | 1.17 | 1.00 |  | -10.40 | 5.08 | 0.56 |  | -10.29 | 5.05 | 0.55 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.07 | 1.00 |  | 0.32 | 0.07 | 1.00 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | -0.00 | 0.07 | 0.06 |  | -0.00 | 0.07 | 0.06 |

Table 32: Results of all investigated simulations ordered according to their used model and dependent variable, for a **reliability of .90**, and a sample size of ***n* = 500**

| **Coefficient** | **Model 1** | | |  | **Model 2** | | |  | **Model 3** | | |  | **Model 4** | | |  | **Model 5** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** | ***M*** | ***SE*** | ***P*** |
| **Post-test score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | 43.10 | 3.80 | 1.00 |  | 0.41 | 3.29 | 0.08 |  | -2.45 | 3.16 | 0.17 |  | 6.17 | 3.48 | 0.41 |  | 50.60 | 4.61 | 1.00 |
| P-I | 0.21 | 0.06 | 0.97 |  | 0.16 | 0.03 | 1.00 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.04 |  | -0.00 | 0.06 | 0.03 |
| P-II | 0.00 | 0.05 | 0.06 |  | 0.00 | 0.04 | 0.06 |  | 0.00 | 0.03 | 0.06 |  | -0.00 | 0.04 | 0.03 |  | -0.00 | 0.07 | 0.03 |
| Pre-test score |  |  |  |  | 0.90 | 0.04 | 1.00 |  | 0.90 | 0.04 | 1.00 |  | 0.89 | 0.04 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.85 | 1.09 | 1.00 |  | -10.66 | 4.54 | 0.65 |  | -15.00 | 7.50 | 0.54 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.06 | 1.00 |  | 0.42 | 0.11 | 0.98 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.10 | 0.06 |
| **Absolute change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -4.48 | 2.45 | 0.43 |  | 0.41 | 3.29 | 0.08 |  | -2.45 | 3.16 | 0.17 |  | 6.17 | 3.48 | 0.41 |  | 0.59 | 3.02 | 0.05 |
| P-I | 0.16 | 0.03 | 1.00 |  | 0.16 | 0.03 | 1.00 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.04 |  | 0.00 | 0.04 | 0.04 |
| P-II | 0.00 | 0.04 | 0.06 |  | 0.00 | 0.04 | 0.06 |  | 0.00 | 0.03 | 0.06 |  | -0.00 | 0.04 | 0.03 |  | -0.00 | 0.04 | 0.04 |
| Pre-test score |  |  |  |  | -0.10 | 0.04 | 0.76 |  | -0.10 | 0.04 | 0.82 |  | -0.11 | 0.04 | 0.88 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.85 | 1.09 | 1.00 |  | -10.66 | 4.54 | 0.65 |  | -10.12 | 4.59 | 0.61 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.06 | 1.00 |  | 0.32 | 0.06 | 1.00 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |
| **Relative change score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.16 | 5.33 | 0.32 |  | 10.83 | 7.75 | 0.43 |  | 5.37 | 7.52 | 0.22 |  | 23.07 | 8.15 | 0.84 |  | 2.20 | 6.59 | 0.05 |
| P-I | 0.32 | 0.07 | 0.99 |  | 0.33 | 0.07 | 1.00 |  | 0.33 | 0.06 | 1.00 |  | 0.00 | 0.09 | 0.04 |  | 0.00 | 0.09 | 0.03 |
| P-II | 0.00 | 0.08 | 0.06 |  | 0.00 | 0.07 | 0.06 |  | 0.00 | 0.07 | 0.05 |  | -0.00 | 0.09 | 0.02 |  | -0.00 | 0.09 | 0.04 |
| Pre-test score |  |  |  |  | -0.40 | 0.11 | 0.99 |  | -0.40 | 0.11 | 0.99 |  | -0.42 | 0.10 | 1.00 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 11.17 | 2.31 | 1.00 |  | -22.71 | 9.75 | 0.65 |  | -20.71 | 10.02 | 0.54 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.67 | 0.13 | 1.00 |  | 0.63 | 0.13 | 0.99 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.13 | 0.06 |  | 0.00 | 0.14 | 0.05 |
| **Residual score** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intercept | -8.17 | 2.37 | 0.91 |  | -7.81 | 2.35 | 0.81 |  | -10.67 | 2.35 | 0.99 |  | -2.05 | 3.06 | 0.06 |  | -2.89 | 2.90 | 0.13 |
| P-I | 0.16 | 0.03 | 1.00 |  | 0.16 | 0.03 | 1.00 |  | 0.16 | 0.03 | 1.00 |  | 0.00 | 0.04 | 0.04 |  | 0.00 | 0.04 | 0.04 |
| P-II | 0.00 | 0.04 | 0.06 |  | 0.00 | 0.04 | 0.06 |  | 0.00 | 0.03 | 0.06 |  | -0.00 | 0.04 | 0.03 |  | -0.00 | 0.04 | 0.03 |
| Pre-test score |  |  |  |  | -0.01 | 0.01 | 0.00 |  | -0.01 | 0.02 | 0.00 |  | -0.02 | 0.02 | 0.01 |  |  |  |  |
| Group |  |  |  |  |  |  |  |  | 5.85 | 1.09 | 1.00 |  | -10.66 | 4.54 | 0.65 |  | -10.54 | 4.52 | 0.64 |
| P-I x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.33 | 0.06 | 1.00 |  | 0.32 | 0.06 | 1.00 |
| P-II x Group |  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 0.06 | 0.06 |  | 0.00 | 0.06 | 0.06 |

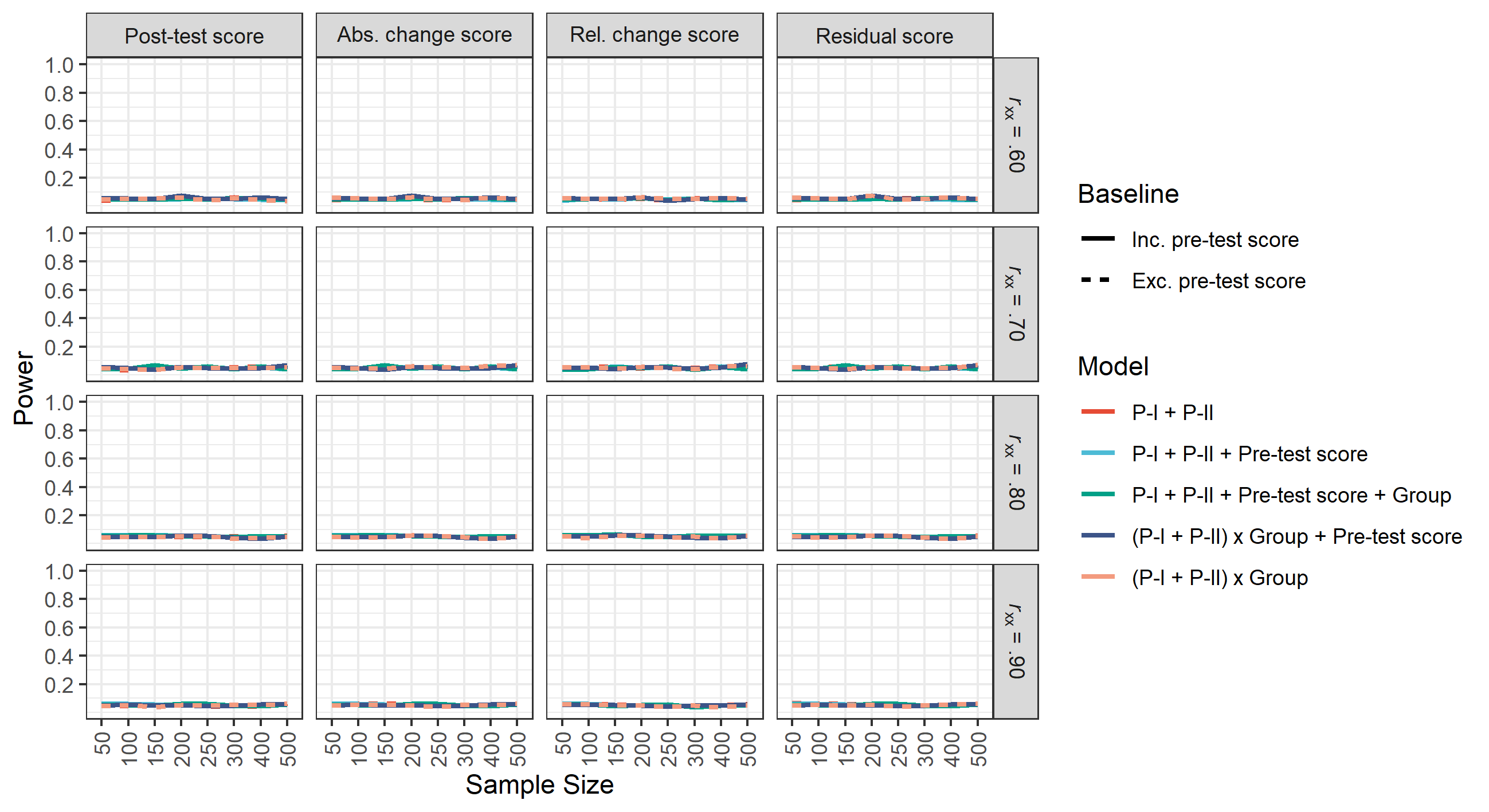


Figure S1: Overview of the power for the P-II or P-II x Group regression coefficient in dependence of the dependent variable, regression model, sample size and reliability.

The probability of obtaining a significant result is constantly at 5 %, indicating that regression model, dependent variable, sample size and reliability do not have an impact on the false discovery rate.

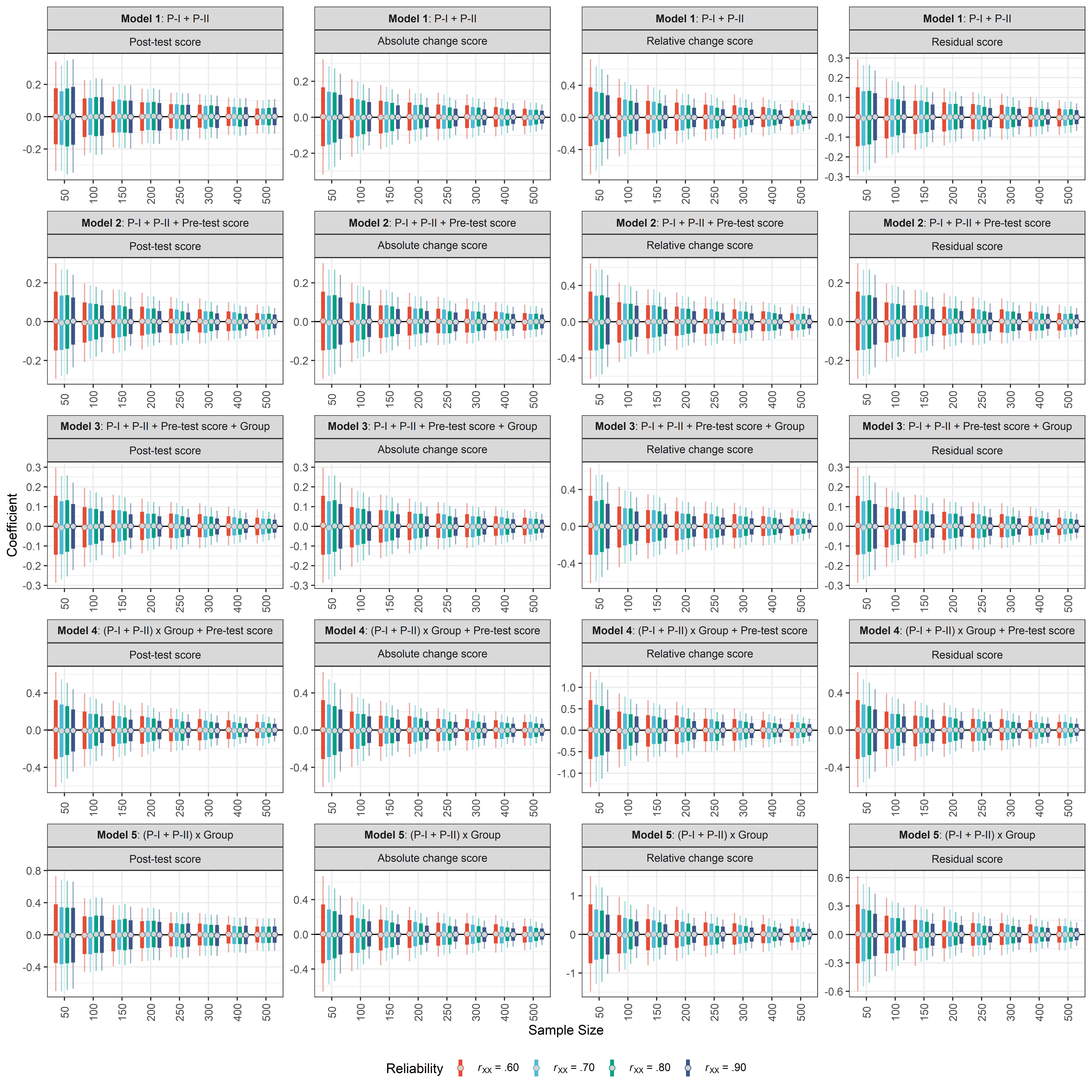


Figure S2: Overview of the regression coefficients of P-II or P-II x Group as a function of the dependent variable, the regression model, the sample size and the reliability.

The different regression models that were tested are displayed in the rows (Model 1 to 5) and the different dependent variables are displayed in the columns. In each subplot, the x-axis indicates the sample size and the y-axis the value of the regression coefficient for the predictor P-II or the P-II x Group interaction, depending on whether the respective model comprised the interaction term or not. For each sample size, the reliability is colour-coded. The dot indicates the mean of the regression coefficient distribution generated by simulating the data. The thick line covers the interval of the mean plus/minus one standard error and the thin line represents the 95% confidence interval.

*Note.* Red colour indicates a reliability of .60; blue colour indicates a reliability of .70; green colour indicates a reliability of .80; purple colour indicates a reliability of .90.

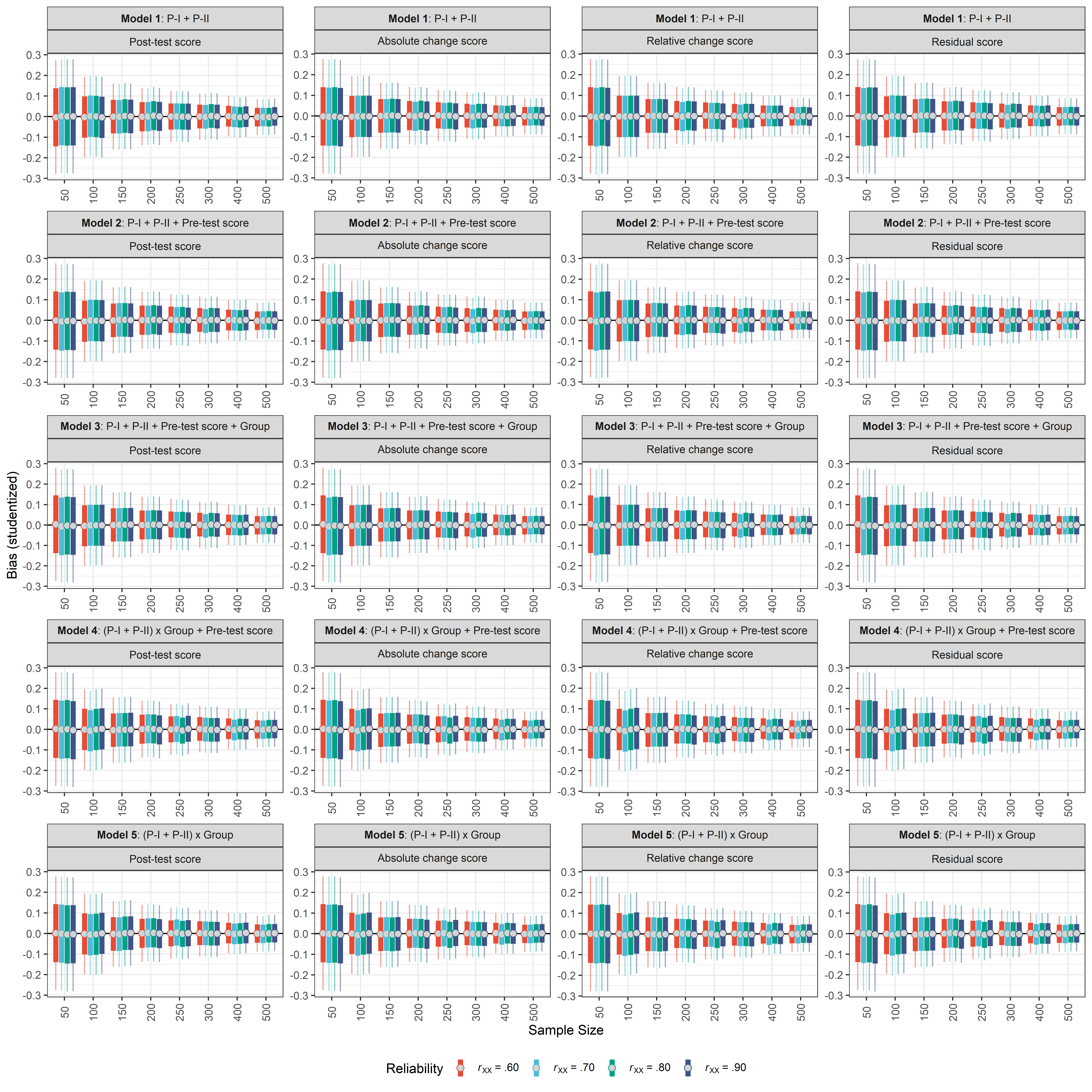


Figure S3: Overview of the studentized bias of the regression coefficients of P-I or P-I x Group as a function of the dependent variable, the regression model, the sample size and the reliability.

The different regression models that were tested are displayed in the rows (Model 1 to 5) and the different dependent variables are displayed in the columns. In each subplot, the x-axis indicates the sample size and the y-axis the studentized bias for the predictor P-I or the P-I x Group interaction, depending on whether the respective model comprised the interaction term or not. For each sample size, the reliability is colour-coded. The dot indicates the mean of the bias distribution. The thick line covers the interval of the mean plus/minus one standard error and the thin line represents the 95% confidence interval. A bias of zero would indicate that the observed regression coefficient is identical to the true regression coefficient.

*Note.* Red colour indicates a reliability of .60; blue colour indicates a reliability of .70; green colour indicates a reliability of .80; purple colour indicates a reliability of .90.