# Supplement

Table S1**.** *Item fit statistics for the IM and EM to the resulting graphical loglinear Rasch models*

|  |  |  |  |
| --- | --- | --- | --- |
| Intrinsic Motivation (IM) | | | |
| items | observed γ | expected γ | p |
| IM1 | 0.48 | 0.48 | 0.865 |
| IM2 | 0.56 | 0.51 | 0.213 |
| IM3 | 0.29 | 0.38 | 0.165 |
| IM4 | 0.38 | 0.34 | 0.354 |
| Extrinsic Motivation (EM) | | | |
| items | observed γ | expected γ | p |
| EM1 | 0.67 | 0.66 | 0.529 |
| EM2 | 0.64 | 0.64 | 0.895 |
| EM3 | 0.52 | 0.51 | 0.704 |
| EM5 | 0.52 | 0.51 | 0.760 |

*Notes.* γ = Item-rest-score correlations for the respective subscale graphical loglinear Rasch models in Figure 1 and Table 1. γ-correlations are goodman and Kruskal’s rank correlation for ordinal data

Table S2. *DIF-equation table for the IM raw score to adjust for age-DIF*

|  |  |
| --- | --- |
| Raw score  Age 25 years and younger | Equated score  Age 26 years and older |
| 5.00 | 5.03 |
| 6.00 | 5.03 |
| 7.00 | 6.25 |
| 8.00 | 7.32 |
| 9.00 | 8.35 |
| 10.00 | 9.35 |
| 11.00 | 10.35 |
| 12.00 | 11.34 |
| 13.00 | 12.33 |
| 14.00 | 13.32 |
| 15.00 | 14.33 |
| 16.00 | 15.36 |
| 17.00 | 16.41 |
| 18.00 | 17.50 |
| 19.00 | 18.65 |

*Note.* Extreme scores and scores not reached by the study population are excluded, as equation values are not available