**Supplemental Materials**

**Longitudinal Measurement Invariance**

To establish longitudinal measurement invariance with ordinal items, we ran models that sequentially imposed stricter constraints across waves (Liu et al., 2017). To identify the location and scale of the common factor (e.g., sexual harassment perpetration) at each time point, the first item’s intercept and factor loading were fixed to 0 and 1, respectively. The location and scale of each unique factor – the latent item-response underlying the ordinal responses – was identified using the theta parameterization, and the identification constraints proposed by Millsap & Tein (2004). The configural model was fit first with all parameters estimated freely across the four waves except those needed to identify the model. Next, the metric model constrained factor loadings to equality over time. The scalar model constrained factor loadings and the item thresholds. For sexual harassment perpetration, the metric and scalar models were equivalent given that all the items were dichotomous, and the only threshold was already constrained for model identification purposes. Finally, the strict model constrained the loadings, thresholds, and unique factor variances. Overall fit of the measurement invariance models was evaluated using typical guidelines of non-significant χ2 test, *CFI* > .95, *RMSEA* < .06, and *SRMR* < .08. The configural, metric, scalar, and strict models were also compared sequentially with a non-significant likelihood ratio test with the Satorra and Bentler (2001) scaled difference test statistic and change (D) in *CFI* < -0.01, *RMSEA* < 0.01, and *SRMR* < 0.01 suggesting measurement invariance (Chen, 2007; Rutkowski & Svetina, 2014).

**Table 1**

*Longitudinal Measurement Invariance of the Sexual Harassment Perpetration Scale (N = 1,563)*

| Model | χ2 | *df* | *p* | *CFI* | *RMSEA* [90% CI] | *SRMR* | Δχ2 | Δ*df* | Δ*p* | Δ*CFI* | Δ*RMSEA* | Δ*SRMR* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Configural | 211.20 | 207 | 0.41 | 1.00 | 0.00  [0.00, 0.01] | 0.10 |  |  |  |  |  |  |
| Metric/Scalar | 233.22 | 222 | 0.29 | 1.00 | 0.01  [0.00, 0.01] | 0.10 | 22.63 | 15 | 0.09 | 0.00 | 0.00 | 0.00 |
| Strict | 249.71 | 240 | 0.32 | 1.00 | 0.01  [0.00, 0.01] | 0.10 | 17.00 | 18 | 0.52 | 0.00 | 0.00 | 0.00 |

**Table 2**

*Longitudinal Measurement Invariance of the School Belonging Scale (N = 1,563)*

| Model | χ2 | *df* | *p* | *CFI* | *RMSEA* [90% CI] | *SRMR* | Δχ2 | Δ*df* | Δ*p* | Δ*CFI* | Δ*RMSEA* | Δ*SRMR* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Configural | 139.83 | 74 | 0.00 | 0.99 | 0.02  [0.02, 0.03] | 0.03 |  |  |  |  |  |  |
| Metric | 172.61 | 83 | 0.00 | 0.99 | 0.03  [0.02, 0.03] | 0.03 | 30.40 | 9 | 0.00 | 0.00 | 0.01 | 0.00 |
| Scalar | 279.14 | 104 | 0.00 | 0.98 | 0.03  [0.03, 0.04] | 0.03 | 130.20 | 21 | 0.00 | 0.00 | 0.01 | 0.00 |
| Strict | 410.74 | 116 | 0.00 | 0.97 | 0.04  [0.04, 0.04] | 0.03 | 140.32 | 12 | 0.00 | -0.01 | 0.01 | 0.01 |

**Cluster Analysis of School Belonging**

There is no definitive method for selecting the optimal *k*. Utilizing the *factoextra* package in *R*, we employed 3 methods 1) within sum of squares (wss) - similar to a scree plot, visual inspection of an “elbow” indicates the optimal *k* given the variance explained, 2) silhouette - incorporates average distance of observations to cluster center and distance between cluster centers with the optimal *k* maximizing the silhouette score, and 3) gap stat - compares the within cluster variation from the proposed clustering and a reference distribution with no clustering with the optimal *k* maximizing the gap.

**Figure 1**

*Metrics Identifying Optimal Number of School Belonging Clusters*

