

Table 3. Results from HLM modeling

| | Model 0 null model | Model 1 student level | Model 2 complete | Model 3 parsimonious |
|-------------------------------------|-----------------------|--------------------------|---------------------|-------------------------|
| <i>Student Level</i> | | | | |
| <i>Constant</i> | 15.10 | 0.97 | 5.78E-19 | 4.64E-18 |
| GeoIS score pre-intervention | | 1.07 | 1.08 | 1.08 |
| Gender | | 0.79 | 0.78 | |
| Race | | 0.29 | -0.55 | |
| STEM major | | 3.58 | 3.09 | 2.18 |
| No. of ARFTs complete | | 2.00 | 1.47 | 1.72 |
| Site classification | | 2.06 | 1.31 | |
| <i>Residual</i> | 101.94 | 65.98 | 65.09 | 65.47 |
| <i>Site Level</i> | | | | |
| GeoIS score pre-intervention | | | 1.50 | 1.71 |
| <i>AIC</i> | 5390.09 | 4169.36 | 4158.09 | 4169.52 |
| <i>BIC</i> | 5403.83 | 4208.78 | 4201.89 | 4200.20 |

AIC—goodness of fit; ARFTs—augmented reality field trips; BIC—goodness of fit; GeoIS—geoscience interest survey; HLM—hierarchical linear modeling; STEM—Science, technology, engineering, and mathematics.