

APPENDIX 23: OPERATIONAL TEST RELIABILITY BY SUBPOPULATIONS

Table 23–1. Reliability by Ethnicity

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-----------|-------------------------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | White (Caucasian) | 48 | 4793 | 36.92 | 9.01 | 0.74 | 0.91 | 2.73 |
| | African American | 48 | 345 | 28.53 | 9.32 | 0.57 | 0.89 | 3.10 |
| | Hispanic | 48 | 578 | 32.64 | 9.53 | 0.65 | 0.90 | 2.95 |
| | Asian/Pac. Islander/Native Hawaiian | 48 | 817 | 28.75 | 9.72 | 0.57 | 0.90 | 3.08 |
| | Alaska Native and American Indian | 48 | 2197 | 25.76 | 10.22 | 0.52 | 0.91 | 3.10 |
| | Two or more races | 48 | 776 | 33.61 | 9.43 | 0.67 | 0.90 | 2.91 |
| 8 | White (Caucasian) | 54 | 4794 | 40.18 | 9.58 | 0.65 | 0.90 | 3.00 |
| | African American | 54 | 352 | 31.99 | 9.98 | 0.52 | 0.89 | 3.32 |
| | Hispanic | 54 | 527 | 34.45 | 10.98 | 0.56 | 0.92 | 3.19 |
| | Asian/Pac. Islander/Native Hawaiian | 54 | 807 | 34.26 | 10.79 | 0.55 | 0.91 | 3.22 |
| | Alaska Native and American Indian | 54 | 1910 | 29.38 | 10.80 | 0.47 | 0.91 | 3.31 |
| | Two or more races | 54 | 604 | 36.19 | 10.30 | 0.58 | 0.91 | 3.17 |
| 10 | White (Caucasian) | 54 | 4638 | 39.58 | 9.94 | 0.62 | 0.90 | 3.07 |
| | African American | 54 | 302 | 30.35 | 10.18 | 0.47 | 0.89 | 3.32 |
| | Hispanic | 54 | 491 | 33.40 | 10.58 | 0.52 | 0.90 | 3.28 |
| | Asian/Pac. Islander/Native Hawaiian | 54 | 735 | 33.33 | 10.42 | 0.52 | 0.90 | 3.27 |
| | Alaska Native and American Indian | 54 | 1731 | 31.16 | 10.37 | 0.49 | 0.90 | 3.32 |
| | Two or more races | 54 | 471 | 37.30 | 10.07 | 0.58 | 0.90 | 3.15 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement

Table 23–2. Reliability by Socioeconomic Status

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-----------|---------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | Not Low Income | 48 | 5001 | 35.95 | 9.68 | 0.72 | 0.92 | 2.77 |
| | Low Income | 48 | 4505 | 29.31 | 10.36 | 0.59 | 0.91 | 3.04 |
| 8 | Not Low Income | 54 | 5217 | 39.58 | 10.12 | 0.64 | 0.91 | 3.01 |
| | Low Income | 54 | 3777 | 32.09 | 10.75 | 0.52 | 0.91 | 3.28 |
| 10 | Not Low Income | 54 | 5254 | 39.10 | 9.92 | 0.61 | 0.90 | 3.09 |
| | Low Income | 54 | 3114 | 32.03 | 10.76 | 0.50 | 0.91 | 3.29 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement

Table 23–3. Reliability by English Proficiency Status

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-------|----------------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | English Proficient | 48 | 8271 | 34.56 | 9.73 | 0.69 | 0.91 | 2.85 |
| | Limited English Proficient | 48 | 1235 | 21.06 | 7.97 | 0.42 | 0.84 | 3.17 |
| 8 | English Proficient | 54 | 8151 | 37.92 | 10.25 | 0.61 | 0.91 | 3.10 |
| | Limited English Proficient | 54 | 843 | 22.08 | 7.39 | 0.36 | 0.79 | 3.38 |
| 10 | English Proficient | 54 | 7551 | 37.81 | 10.19 | 0.59 | 0.91 | 3.14 |
| | Limited English Proficient | 54 | 817 | 24.09 | 7.95 | 0.38 | 0.82 | 3.42 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement

Table 23–4. Reliability by Migrant Status

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-------|---------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | Non-Migrant | 48 | 8870 | 33.14 | 10.48 | 0.66 | 0.92 | 2.89 |
| | Migrant | 48 | 636 | 28.16 | 10.30 | 0.56 | 0.91 | 3.06 |
| 8 | Non-Migrant | 54 | 8363 | 36.80 | 10.97 | 0.59 | 0.92 | 3.12 |
| | Migrant | 54 | 631 | 31.60 | 10.64 | 0.51 | 0.90 | 3.29 |
| 10 | Non-Migrant | 54 | 7846 | 36.73 | 10.74 | 0.57 | 0.91 | 3.16 |
| | Migrant | 54 | 522 | 32.51 | 10.84 | 0.51 | 0.91 | 3.28 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement

Table 23–5. Reliability by Special Education Status

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-------|-------------------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | Regular Education | 48 | 8122 | 33.85 | 10.17 | 0.68 | 0.92 | 2.87 |
| | Individualized Education Plan | 48 | 1384 | 26.69 | 10.63 | 0.53 | 0.92 | 3.08 |
| 8 | Regular Education | 54 | 7947 | 37.72 | 10.51 | 0.61 | 0.91 | 3.10 |
| | Individualized Education Plan | 54 | 1047 | 26.67 | 9.93 | 0.43 | 0.89 | 3.35 |
| 10 | Regular Education | 54 | 7517 | 37.62 | 10.25 | 0.59 | 0.91 | 3.15 |
| | Individualized Education Plan | 54 | 851 | 26.31 | 10.16 | 0.41 | 0.89 | 3.36 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement

Table 23–6. Reliability by Gender

| Grade | Subpopulation Group | L | N | Mean | SD | Mean p-value | Reliability | SEM |
|-------|---------------------|----|------|-------|-------|--------------|-------------|------|
| 4 | Female | 48 | 4589 | 32.46 | 10.47 | 0.65 | 0.92 | 2.93 |
| | Male | 48 | 4917 | 33.12 | 10.60 | 0.66 | 0.93 | 2.87 |
| 8 | Female | 54 | 4376 | 35.98 | 10.94 | 0.58 | 0.92 | 3.16 |
| | Male | 54 | 4618 | 36.85 | 11.10 | 0.59 | 0.92 | 3.10 |
| 10 | Female | 54 | 4091 | 35.79 | 10.20 | 0.56 | 0.90 | 3.20 |
| | Male | 54 | 4277 | 37.12 | 11.30 | 0.58 | 0.92 | 3.14 |

L=Number of items, N=Number of persons, Mean=Average person raw score
SD=Standard deviation of person raw scores, SEM=Standard error of measurement