Supplementary Table 1. Test items included within each composite factor scores.

|  |  |  |  |
| --- | --- | --- | --- |
| **RIRT** | | **CDAS** | |
| **Driving Awareness** | **Speed Control** | **Response to Traffic** | **Lane Keeping** |
| Awareness of signs | Approaches intersection at appropriate speed | Follows directions from other occupant | Starting |
| Light awareness | Brakes smoothly and accurately | Responds appropriately to traffic signs, lights, and road markings | Centers vehicle in travel lane |
| Aware of traffic situations | Proceeds timely | Demonstrates appropriate response during emergency situations | Lane keeping |
| Responds appropriately to signal | Accelerates smoothly and accurately | Backing | Attention |
| Scans |  | Parking (horizontal) |  |
| Uses mirrors |  | Uses turn signal |  |
| Positions for turn |  | Left turn |  |
| Yields right of way |  | Right turn |  |
| Signal use |  | Proceeds without hesitation |  |
| Attends to task |  | Checks blind spots |  |
| Awareness of pedestrians |  | Brakes smoothly with adequate time and space |  |
| Spatial awareness |  | Demonstrates appropriate steering recovery |  |
| Lane selection |  | Speed control |  |
| Lane keeping |  | Scans timely and comprehensively |  |
| Awareness of environment |  | Uses mirrors properly |  |
| Speed control |  | Maintains safe distance from other vehicles wile in motion |  |
| Steering control |  | Able to judge spatial positioning for turns and parking |  |
| Uses mirrors for lane change |  | Demonstrates proper use of vehicle equipment |  |
| Checks blind spots |  | Awareness of how driving affects others |  |
| Changes lane without verbal cue |  | Anticipation of traffic situations |  |
| Scans while in motion |  | Reaction time |  |
|  |  | Response to other’s brake lights, signals, etc. |  |

Characterization of composite factor scores is based on the factor analysis described in a previous report (Ott et al., 2012). Each item was rated as 0=unimpaired, 1=mildly impaired or 2=moderately-to-severely impaired. In the RIRT, every instance of each behavior encountered was rated. In the CDAS, each item was rated once based on all instances of that behavior viewed in the four hours of video. Scores were computed by summing the ratings and dividing that sum by the total observed behaviors. Note that most test items loaded on a primary factor in each driving scale, but a secondary factor with fewer test items explained additional variability in the performance data.

Supplementary Table 2. Range of Scores for the RIRT and CDAS driving measures across groups

|  |  |  |
| --- | --- | --- |
|  | **EC (n=37)**  **Mean (SD) *[range]*** | **AD (n=42)**  **Mean (SD) *[range]*** |
| **RIRT** |  |  |
| ***Total Errors*** | 0.040 (0.029) *[0.002-0.118]* | 0.072 (0.054) *[0.011-0.243]* |
| ***Driving Awareness*** | 0.026 (0.015) *[0.002-0.064]* | 0.057 (0.045) *[0.007-0.176]* |
| ***Speed Control*** | 0.013 (0.019) *[0.000-0.076]* | 0.122 (0.018) *[0.000-0.084]* |
| **CDAS** |  |  |
| ***Total Errors*** | 0.099 (0.084) *[0.000-0.397]* | 0.161 (0.092) *[0.033-0.393]* |
| ***Response to Traffic*** | 0.063 (0.059) *[0.000-0.276]* | 0.115 (0.076) *[0.000-0.317]* |
| ***Lane Keeping*** | 0.018 (0.021) *[0.000-0.071]* | 0.029 (0.030) *[0.000-0.125]* |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | EC | | | AD | | |
| RIRT | | | RIRT | | |
| Total Errors | Driving Awareness | Speed Control | Total Errors | Driving Awareness | Speed Control |
| CDAS | Total Errors | .083 (.627) | .147  (.385) | -.023 (894) | ***.620 (<.001)\*\**** | ***.576 (<.001)\*\**** | ***.371 (.015)\**** |
| Response to Traffic | .129 (.446) | .225  (.181) | -.019 (.911) | ***.622 (<.001)\*\**** | ***.595 (<.001)\*\**** | ***.339 (.028)\**** |
| Lane Keeping | -.089 (.601) | -.051  (.766) | -.102 (.547) | .248 (.114) | .232 (.140) | .135 (.392) |

Supplementary Table 3. Correlations between driving measures in each group

RIRT=Rhode Island Road Test; CDAS=Composite Driving Assessment Scale. Cell contents reflect Pearson’s *r* (p-value).