MnDOT 99007 – ***Evaluation of Guide Sign Fonts***

05/28/2013

**Project Status Update**

**Task 3: Closed Course Testing**

***3A: Experimental Design***

Overhead guide signs (words):

* + The word set consisted of a total of 15 words.
  + Every participant saw all 15 words and saw each word only once.
  + The 15 words were randomized among the fonts for each participant such that each participant saw all 5 numbers and saw at least 1 number in each font.

Shoulder-mounted sign (numbers):

* + The number set consisted of a total of 5 numbers.
  + Every participant saw all 5 numbers and saw each number only once.
  + The 5 numbers were randomized among the fonts such that they were balanced among all participants.

Randomization:

* + There were 3 sign locations for the overhead guide signs along the roadway course, with 1 font per location. The 3 fonts were randomized among the 3 locations.
  + The shoulder-mounted number sign remained in the same location along the roadway course throughout the study.

***3B: Equipment Setup***

3 forklifts were used to support the overhead guide signs, with 1 font for each forklift/sign location.

The following full-scale roadway test signs (panels and overlays) were used in the study:

* + 3 overhead back panels (8 ft x 10 ft)
  + 45 letter legend overlays – 3 fonts, 15 words/font (2.5 ft x 8 ft)
  + 15 number legend panels – 3 fonts, 5 numbers/font (2.5 ft x 4 ft)

Instrumented vehicles: Two TTI minivans were equipped with GPS measurement systems for data collection.

***3C: Data Collection***

April 17 – Pilot testing began.

April 22 – May 13: Participant data was collected. The schedule was extended due to frequent inclement weather.

* + Daytime participants
    - 16 total (6 young, 10 old)
  + Nighttime participants
    - 48 total (18 young, 30 old)
    - 14 of the original 16 daytime participants also ran at night (2 were not able to return)

**Task 4: Data Analysis**

Data reduction was completed May 24.

Data analysis will begin this week and should be completed by June 30.