**PURPOSE**

- Provide seniors with accurate information about their driving ability, which may predict likelihood of success in driver’s license renewal.
- Perform requirements gathering and analysis for a mobile game-based assessment tool examining perceptive, cognitive, and motor skills associated with driving.

**LITERATURE REVIEW**

*Driving and Seniors*

- By 2021, almost 20% of Canadians will be 65 years old or more (Government of Canada, 2006). Crash rates for older drivers are higher than for all other age groups, with the exception of the youngest drivers (e.g., McKenzie & Peck, 1998; NHTSA, 2000).

*Technology Usage in Seniors*

- Older adults (65+) are increasingly adoptive of technology with 59% of online users and 27% owners of a tablet or e-book (Pew Research Report, 2013).
- Designing technology with age-related changes in mind increases adoption and usage (e.g. Rogers et al., 2005).

*Gaming among Seniors*

- Seniors do enjoy and can be motivated by digital game play.
- 29% of computer game users are aged 50+ (Entertainment Software Association, 2011).

**RESEARCH METHODS**

**Stage 1. Requirement Identification**

- Semi-structured interview approach will be used to gain understanding of seniors’ needs and concerns regarding driving and current assessment tools.
- Thirty participants (70+) with valid driver’s license and some digital game experience.

**Stage 2. Persona Development**

- Two fictional characters, Betty and Don, will be created using data from Stage 1 to facilitate understanding of views and attitudes of seniors toward their identity as drivers and how assessment games may inform that identity.

**Stage 3. Usability Testing**

- Open card sort (two separate) will be conducted on architecture of the game and feedback and reward mechanisms.
- Fifteen participants (70+) in one-hour sessions.

**RESEARCH DESIGN**

**Knowledge Claim**

- Advocacy approach will be employed to improve quality of life for senior drivers.
- Focus is increase seniors’ self-awareness of driving skills, thereby empower them with accurate and realistic information for making decisions related to driving, driving cessation, and license renewal.

**Strategies of Inquiry**

- Mixed methods strategy
- Interview and involve participants in usability testing

**DISCUSSION**

Sunday Drive will have the exciting capability to:

- **support seniors** as they go through the process of recognizing and accepting changes in their driving-related abilities.
- **enhance seniors’ self-awareness** and self-regulatory behavior concerning their own driving ability.
- **decrease levels of stress and anxiety** in advance of upcoming bi-annual road tests.
- **open lines of communication** between seniors and their friends and family regarding driving concerns, if they play the game together, by providing assessment data in a low-stakes format.
- **provide an enjoyable experience** for seniors using game elements such as narrative, points, rewards, immediate feedback, replayability, and challenge.