i-DARE:
A feasibility and pilot quasi-experimental efficacy study

Co-PIs: Sherrilene Classen, PhD; Liliana Alvarez, PhD

Collaborators: Wenqing He, PhD

Research Assistant: Shabnam Medhizadah, MSc

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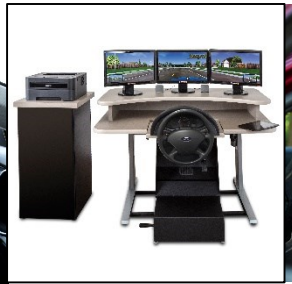
The Gap: Hazard Detection

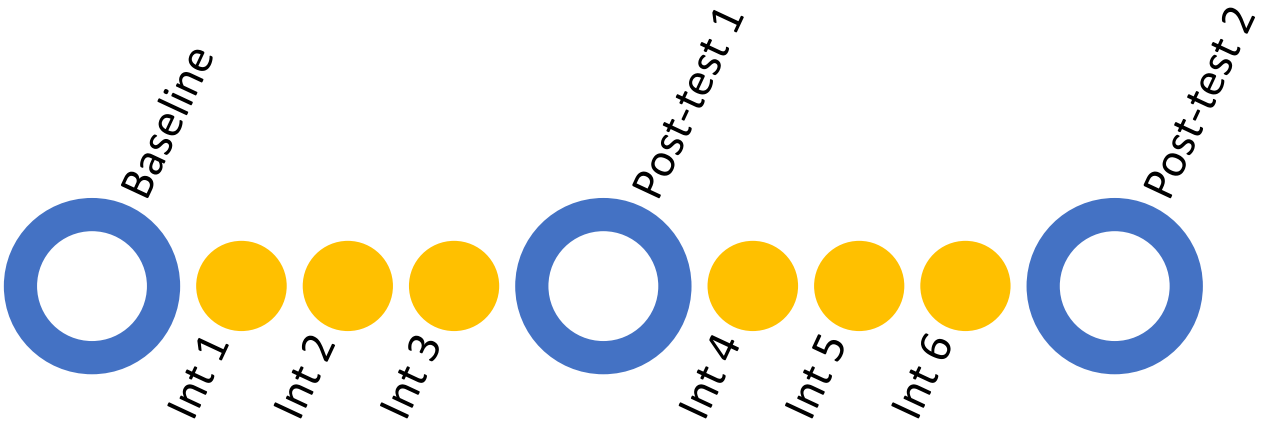
- Effectiveness of traditional driver's education classes
- Focus on phones as external sources of distraction
- Computer or multimedia-based training has yielded superior results over paper-based training
- Limitations of static image or non-interactive dynamic displays

McDonald et al., 2014; 2015; Mayhew et al., 1998; Petzold et al., 2013





Methods



Primary outcomes: number of visual scanning and adjustment to stimuli errors





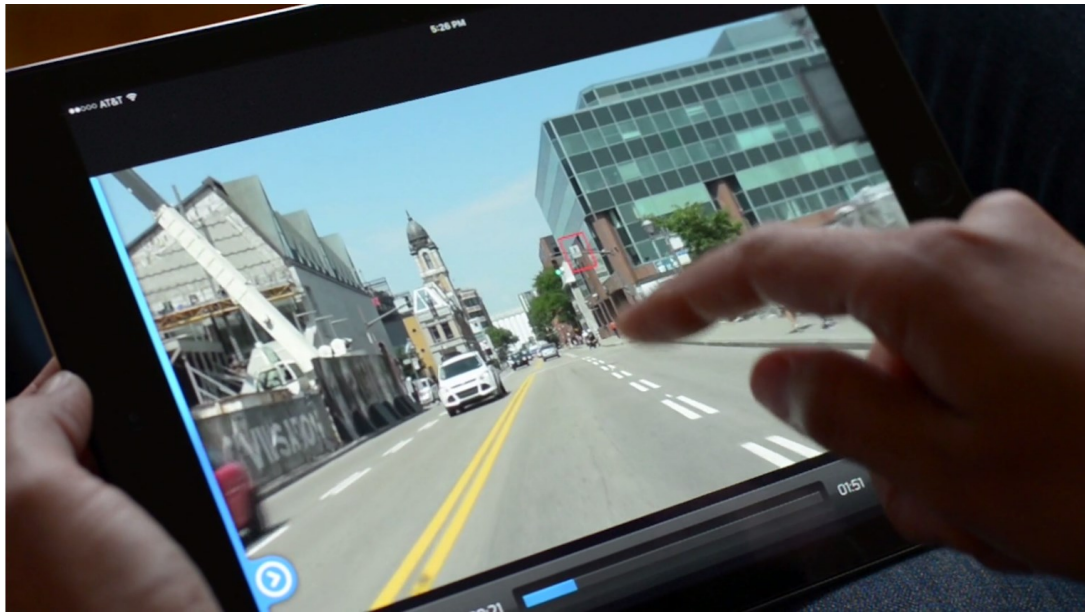
Hazardous events

Pedestrian crossing
Car pulls out in front
Car makes sudden lane change
Go-no-Go light
Strategic: Navigation task

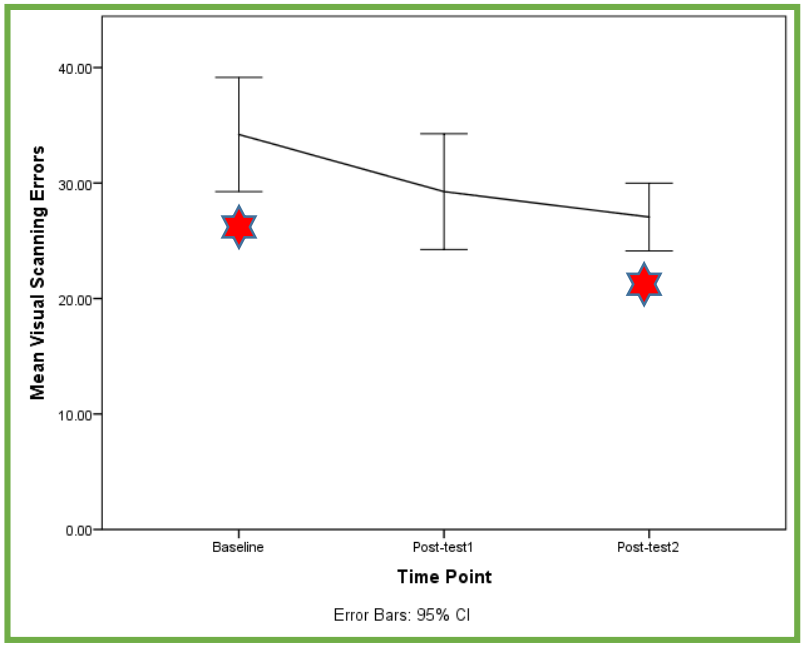
Methods
The intervention: DriveFocus app

- Designed by an OT/ CDRS
- Fidelity and usability-tested with the teen population
- Provides a structured approach to learning to detect and respond to critical roadway information

DRIVEFOCUS



Visual Scanning



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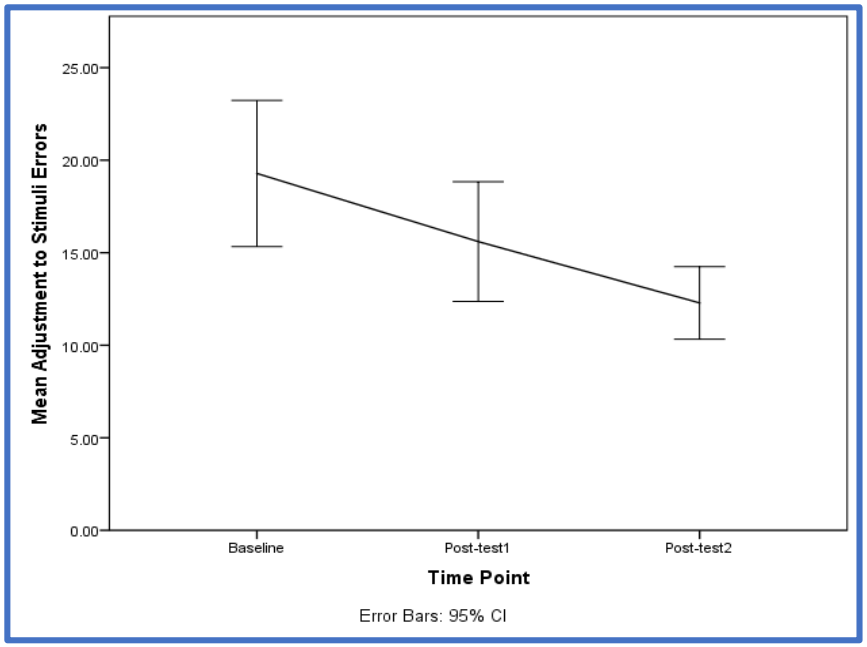
Adjustment to Stimuli



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Impact

- Preliminary empirical evidence
- This study lays the foundation for an RCT to determine effectiveness of the intervention
- Normative data set to expand intervention to clinical populations
- Simulator scenarios that target hazard perception for young drivers


Liliana Alvarez, PhD
lalvare2@uwo.ca


THANK
YOU