Driving into the Future with Virtual Reality (VR) Training

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Session objectives

VR re-enforces existing training in a safe to fail environment

VR allows introduction of new challenges through the use of environmental and distraction training scenarios

VR is an effective tool in reaching non-traditional learners

VR provides safety and efficiency benefits
Rural providers can face unique challenges

- **Limited Intersection types**
  - A dozen traffic signals in the entire county; only 5 have protected turns
  - One “Yield” permitted intersection
  - No roundabouts

- **Limited roadway types**
  - No freeways
  - Very few one-way streets
  - Limited multi-lane roads
Our basic plan

- Learn the concept in class
- Practice the concept with VR
- Demonstrate proficiency with in-car execution of the concept
- Re-enforce the concept with VR training
When should VR be used in training?
Basic car control course

- Can change environment
  - dry/wet
  - day/night

- Can turn on/off
  - stability control
  - ABS

- Can change vehicle
  - sedan
  - pickup truck
Each scenario provides a score

Car Control:
- Breaking Distance: actual vs ideal
- # of cones hit
- Overall score (allows students to “gamify” the experience)
Teaches reference points
Teaches reference points
Intersections
Intersections

➢ Missed light or stopped to far away from stop sign
➢ Allows you to coach on proper turn starting & recovery point
➢ Teaches point of no return
Back in parking

➢ Practice constrained parking
➢ Allows you to vary coaching level
➢ Gives students confidence prior to Behind the Wheel (BTW) practice
Highway with Traffic

- Monitors follow distance
- Average look ahead time
Stroop Distraction Training
Stroop testing on highway with traffic
VR in a COVID world

- Protective equipment minimizes touch
- Instructor can be 6 feet away
- Easy to clean between students
Benefits (we expected)

- Students have responded positively
- Students see the consequences of unsafe behavior
- Students get instant, quantifiable feedback
- Students can practice the exact same maneuver multiple times
Repetition is key for alternative learners

For students who are non-traditional learners more practice is often required.

Teaching followed immediately by practice is very helpful.

VR adds an additional tool to empower these students.
Benefits (unexpected)

➢ BTW instruction is more effective
➢ Increased efficiency during COVID
➢ Increased reach in the community
Contact information

For VR use with your class

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For technical questions on the VR system

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