

Improving Teen Driving Safety: The Driver Coach Project

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Collaborative Safety Research Center

Advancing Collaborative Safety Research



- *“Work with leading NA universities, hospitals, federal agencies ...”*
- *“...benefit the entire industry.”*
- *“... Initial funding: \$50 million over 5 years”*

Driver Coach Project

Partner: Virginia Tech Transportation Institute



PI: Dr. Charlie Klauer

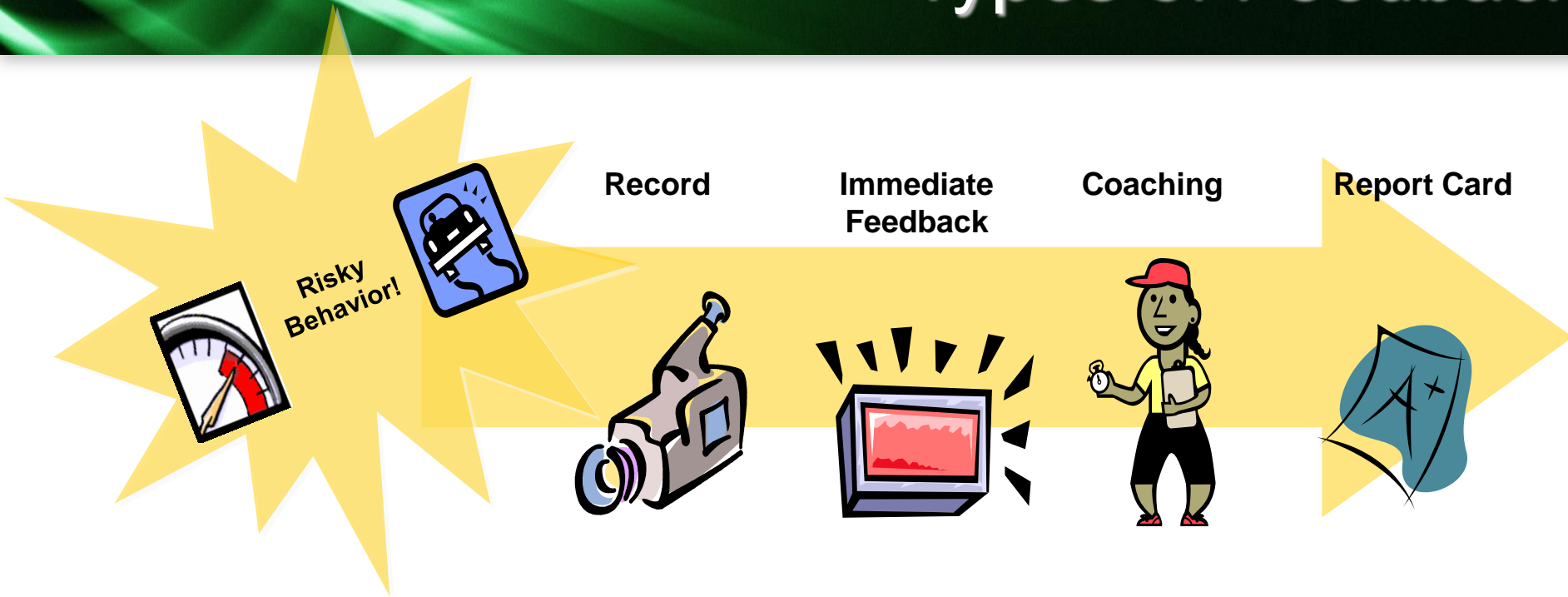
Project Start – Nov. 2011 Duration – 3 years

Helping Teen Drivers

Goals

1. Understand relationship between crash/near crash events and risky behavior
2. Understand how feedback can change risky behavior

Types of Feedback



- Providing real-time feedback to teens can help reduce the frequency of risky driving behaviors
- Providing delayed feedback to parents and teen, with coaching tips, can speed up the learning curve

Driver and Parent Feedback

- Feedback will be given for:
 - Hard braking or acceleration
 - Hard cornering or swerving
 - Lane Departure
 - Speed over preset limit
 - Driver distraction via head movement off road
 - Presence of alcohol
- Real-time feedback includes: tone and/or light combination
 - If light is on = event was recorded (parent will see)
- Delayed feedback would include emails with link to website where parents/teens can download video to review 'teachable moments'
 - Coaching includes positive feedback for correct behaviors

- Feedback Group: Driver Coach Study (2012)
 - 90 teenagers
 - 45 male, 45 female
 - Bedford and Montgomery Counties, Virginia
 - 15 to 18 months of data collection (from learner's permit to 6 months after provisional licensure)
 - Feedback begins at provisional license
- Control Group: Supervised Practice Driving Study (In Process)
 - Same participant requirements

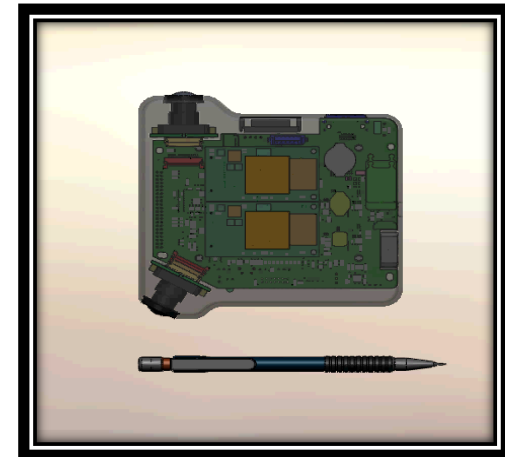
- Unique aspects
 - Continuous data in addition to triggered collection
 - Number of triggers
 - Complete control group
 - Length of data collection

Research Questions

- Does real-time and delayed feedback reduce rates of crash/near-crash involvement for teen drivers as compared to a control group?
- Are some types of feedback more important to the reduction of crash/near-crash occurrence than others?
- Are there any unintended consequences observed for the teens who received feedback?
- After the feedback is turned off, did the occurrence of unsafe driving maneuvers increase?
- What are the greatest behavioral risk factors for teens in the presence of driving performance feedback? How often do they engage in these behaviors?
- What human characteristics (e.g., personality, risk taking propensity, parenting style) interact with driving performance?

Current Study Status

- Pre-pilot phase
 - trigger thresholds
 - in-vehicle feedback
 - report card website
- Mini-DAS development continuing
- Data collection begins Jan 2013



- Toyota's Collaborative Safety Research Center
- Eunice Kennedy Shriver National Institute of Child Health and Human Development
- Virginia Center for Transportation Innovation and Research (VCTIR)
- The National Surface Transportation Safety Center for Excellence at VTTI



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