

June 2025

RESEARCH PROJECT TITLE

Aligning Iowa Driver Education Curriculum and Standards Toward a Zero Fatalities Vision

SPONSORS

Iowa Department of Transportation
Federal Highway Administration
SPR-RE22(018)-8H-00
(InTrans Project 22-801)

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Aligning Iowa Driver Education Curriculum and Standards Toward a Zero Fatalities Vision

tech transfer summary

Enhancements to the driver education curriculums used in Iowa and the development of supplemental materials have the potential to reduce crashes involving younger drivers.

Objective

The main goal of this research was to enhance Iowa's driver education curriculum and ensure that it addresses both Iowa-specific and general safety issues to prepare novice drivers for a rapidly changing driving environment.

Background

Although young drivers log fewer miles than any age group except the elderly, the number of crashes and fatalities they experience is disproportionately high.

Police reports for crashes involving younger drivers frequently cite failure to visually scan the roadway environment, distraction from the driving task, and failure to manage speed as contributing factors. Younger drivers with multiple passengers in the vehicle are also more likely to be involved in a crash.

Driver education has been found to be an important part of improving safety among young drivers. Teen drivers who did not complete a driver education program have been found to be much more likely to receive a traffic ticket or be involved in a fatal or injury crash.



Young driver on an Iowa roadway

Problem Statement

Current requirements for driver education outlined in the Iowa Code and Iowa Administrative Rules do not take a comprehensive or data-driven approach to identifying and addressing the needs of novice drivers. In particular, the curriculum lacks a focus on helping novice drivers understand traffic safety and acquire the skills that will enable them to develop good lifelong driving habits.

Research Description

A set of topics for additional curriculum material was selected through the following activities:

- National studies were reviewed and Iowa crash data were evaluated to determine the types and characteristics of crashes involving teen drivers.
- The curriculums for several Iowa driver education courses were compared against national standards and other states' curriculums.
- Iowa-based driver education instructors and parents who have served as instructors for their own novice drivers were surveyed to identify curriculum needs and best practices.
- The set of topics was evaluated and finalized by a panel of stakeholders.

A series of modules and instructional videos addressing these topics was developed to supplement driver education curriculums in Iowa, and recommendations were drafted for changes to Iowa driver education curriculums, the Iowa Code, and Iowa Administrative Rules.

Key Findings

- The review of the national literature and evaluation of Iowa crashes indicated the following safety concerns for young drivers: distraction, seat belt use, right-of-way (ROW), risky behaviors, situational awareness, impaired driving, passengers, and challenging roadways.
- The analysis of Iowa crash data identified numerous environmental, temporal, crash, and roadway characteristics that were overrepresented in teen driver crashes. For example, teen driver crashes are more likely to occur in August and September, occur on roads with lower speed limits, and involve driving too fast for conditions.
- Iowa-based driver education instructors suggested several enhancements to driver education, for example, involving parents in driver education with their teen, addressing distraction, and helping teens anticipate and think through driving situations.

- The most common suggestions from parents included additional instruction on distraction, traffic signs, protocol when involved in vehicle malfunction or crash, low-friction scenarios, and cell phone use.

Research Products and Recommendations

The main product of this research was content that could be included in Iowa driver education courses. Driver education instructors can supplement their course material with this content, or it can be directly incorporated into a driver education course. Content was developed for the following nine topics:

- Distraction
- Speeding
- Impaired driving
- General risky behavior
- Seat belt
- Situational awareness
- Driving with passengers
- Intersection/ROW
- Challenging roadways

A detailed outline was created for each topic that policymakers can use to set requirements for statewide content and that course developers can use to address top safety concerns for teen drivers. Additionally, nine teaching modules and 10 instructional videos were created focusing on one or more of these topics.

The team recommends that several topics found to be particularly problematic for Iowa teens should be included in Iowa driver education curriculums:

- Intersection negotiation scenarios, which include understanding appropriate yielding and stopping behavior, and specifically address stop signs, uncontrolled intersections, and left turns.
- Driving on unpaved roads, which includes understanding how to share the road with other vehicles and maneuvering with less friction
- Speeding, which includes driving too fast for conditions and the consequences of speeding
- Distraction, which covers issues related to distraction and provides tools to address distraction
- Situational awareness, which includes understanding how to anticipate and manage unexpected and changing road conditions
- Strategies for addressing peer pressure while driving

Recommended changes to the sections in the Iowa Code and Iowa Administrative Rules related to driver education were also drafted, covering items such as the following:

- Minimum of 1 hour of instruction to address intersection negotiation, including appropriate yielding and stopping behavior at stop signs, uncontrolled intersections, and left turns.
- Minimum of 30 minutes of instruction to address speeding, including obeying the posted speed limit, traveling too fast for conditions, and the consequences of speeding.
- A minimum of 4 hours of instruction concerning substance use, including the use of prescription drugs and distracted driving.

Implementation Readiness and Benefits

The products of this research are available for implementation. The detailed outlines of the nine key topics and the recommended language for the Iowa Code and Administrative Rules are included in the final report for this project. The modules and instructional videos are also available for use.

Driver education is an important component in helping novice drivers understand traffic safety and learn good decision-making skills while driving, improving safety for these drivers as well as all road users. Driver education materials that address the challenges faced by these drivers and by driver education instructors and parents are critical for realizing this benefit.